# UNIVERSITY OF MARYLAND

## OFFICIAL PUBLICATION

Vol. 32 FEBRUARY, 1935 No. 2

# Catalogue Number

## 1935-1936

COLLEGE PARK, MARYLAND

# CALENDAR FOR 1935, 1936, 1937

## 1935

### JULY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 |  |  |  |

### AUGUST

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

### SEPTEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 |  |  |  |  |  |

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |  |  |

### NOVEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  |  | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

### DECEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |  |  |  |  |

## 1936

### JANUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 |  |

### FEBRUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |

### MARCH

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |  |  |  |  |

### APRIL

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 |  |  |

### MAY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  |  | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |  |  |  |  |  |  |

### JUNE

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 |  |  |  |  |

### JULY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 |  |

### AUGUST

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |  |  |  |  |  |

### SEPTEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 |  |  |  |

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

### NOVEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 |  |  |  |  |  |

### DECEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |  |  |

## 1937

### JANUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  |  | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |  |  |  |  |  |  |

### FEBRUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 |  |  |  |  |  |  |

### MARCH

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 |  |  |  |

### APRIL

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |  |

### MAY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |  |  |  |  |  |

### JUNE

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
|  |  | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 |  |  |  |

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# THE UNIVERSITY
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# MARYLAND

## CATALOGUE NUMBER

1935 - 1936

*Containing general information concerning the University.*
*Announcements for the Scholastic Year 1935-1936*
*and Records of 1934-1935.*
*Facts, conditions, and personnel herein set forth are as*
*existing at the time of publication, April, 1935.*

Issued Monthly by The University of Maryland, College Park, Md.
Entered as Second Class Matter Under Act of Congress of July 16, 1894.

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# UNIVERSITY CALENDAR

1935-1936

## COLLEGE PARK

### *First Semester*

| | | |
|---|---|---|
| 1935 | | |
| Sept. 16-17 | Monday, Tuesday | Registration for freshmen. |
| Sept. 18 | Wednesday | Upper classmen complete registration. |
| Sept. 19 | Thursday, 8:20 a. m. | Instruction for first semester begins. |
| Sept. 25 | Wednesday | Last day to change registration or to file schedule card without penalty. |
| Nov. 27-Dec. 2 | Wednesday, 4:10 p. m.-<br>Monday, 8:20 a. m. | Thanksgiving Recess. |
| Dec. 21 | Saturday, 12:10 p. m. | Christmas Recess begins. |
| 1936 | | |
| Jan. 6 | Monday, 8:20 a. m. | Christmas Recess ends. |
| Jan. 6-Feb. 14 | Monday-Friday | Winter School in Agriculture, Home Economics, and Rural Life. |
| Jan. 22-29 | Wednesday-Wednesday | First semester examinations. |

### *Second Semester*

| | | |
|---|---|---|
| Jan. 14-21 | Tuesday-Tuesday | Registration for second semester. |
| Feb. 3 | Monday | Last day to complete registration for second semester without payment of late registration fee. |
| Feb. 4 | Tuesday, 8:20 a. m. | Instruction for second semester begins. |
| Feb. 10 | Monday | Last day to change registration or to file schedule card without penalty. |
| Feb. 22 | Saturday | Washington's Birthday. Holiday. |
| Apr. 8-15 | Wednesday, 4:20 p.m.-<br>Wednesday, 8:20 a. m. | Easter Recess. |
| May 25-June 1 | Monday-Monday | Registration for first semester, 1936-1937. |
| May 30 | Saturday | Memorial Day. Holiday. |
| May 31 | Sunday, 11:00 a. m. | Baccalaureate Sermon. |
| June 2-10 | Tuesday-Wednesday | Second semester examinations. |
| June 5 | Friday | Class Day. |
| June 6 | Saturday | Commencement. |

### *Summer Term*

| | | |
|---|---|---|
| June 15-20 | Monday-Saturday | Rural Women's Short Course. |
| June 24 | Wednesday | Summer Session begins. |
| Aug. 4 | Tuesday | Summer Session ends. |
| Aug. 6-11 | Thursday-Tuesday | Boys' and Girls' Club Week. |
| Sept. 1-3 | Tuesday-Thursday | Volunteer Firemen's Short Course. |

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## BALTIMORE (PROFESSIONAL SCHOOLS)

### *First Semester*

| | | |
|---|---|---|
| 1935.<br>September 16 | Monday | *Registration for evening students (LAW). |
| September 18 | Wednesday | Instruction begins with the first scheduled period (LAW—Evening). |
| September 24 | Tuesday | *Registration for first- and second-year students (DENTISTRY, MEDICINE, PHARMACY). |
| September 25 | Wednesday | *Registration for all other students (DENTISTRY, LAW—Day, MEDICINE, PHARMACY). |
| September 26 | Thursday | Instruction begins with the first scheduled period (DENTISTRY, LAW—Day, MEDICINE, PHARMACY). |
| November 27 | Wednesday | Thanksgiving recess begins after the last scheduled period (ALL SCHOOLS). |
| December 2 | Monday | Instruction resumed with the first scheduled period (ALL SCHOOLS). |
| December 21 | Saturday | Christmas Recess begins after the last scheduled period (ALL SCHOOLS). |
| 1936<br>January 6 | Monday | Instruction resumed with the first scheduled period (ALL SCHOOLS). |

| | | |
|---|---|---|
| January 27 to<br>February 1, inc. | Monday<br>Saturday | *Registration for the second semester (ALL SCHOOLS). |
| February 1 | Saturday | First semester ends after the last scheduled period (ALL SCHOOLS). |

*Second Semester*

| | | |
|---|---|---|
| February 3 | Monday | Instruction begins with the first scheduled period (ALL SCHOOLS). |
| February 22 | Saturday | Washington's Birthday. Holiday. |
| April 8 | Wednesday | Easter recess begins after the last scheduled period (ALL SCHOOLS). |
| April 15 | Wednesday | Instruction resumed with the first scheduled period (ALL SCHOOLS). |
| June 6 | Saturday | Commencement. |
| June 17 | Wednesday | Second semester ends (LAW—Evening). |

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* A student who neglects or fails to register prior to or within the day or days specified for
his or her school will be called upon to pay a fine of five dollars ($5.00). The last day of
registration with fine added to regular fees is Saturday at noon of the week in which
instruction begins following the specified registration period. (This rule may be waived
only upon the written recommendation of the dean.)

* The offices of the registrar and comptroller are open daily, not including Saturday, from
9:00 a. m. to 5:00 p. m., and on Saturday from 9:00 a. m. to 12:30 p. m., with the following
exceptions: Monday, September 16, 1935, until 8:00 p. m.; Saturday, September 28, 1935,
until 5:00 p. m.; and on Saturday, February 1, 1936, until 5:00 p. m.
Advance registration is encouraged.

## BOARD OF REGENTS

| | *Term Expires* |
|---|---|
| George M. Shriver, Chairman<br>Pikesville, Baltimore County | 1942 |
| John M. Dennis, Treasurer<br>Riderwood, Baltimore County | 1941 |
| W. W. Skinner, Secretary<br>Kensington, Montgomery County | 1936 |
| William P. Cole, Jr.<br>Towson, Baltimore County | 1940 |
| Henry Holzapfel, Jr.<br>Hagerstown, Washington County | 1943 |
| J. Milton Patterson<br>Cumberland, Garrett County | 1944 |
| John E. Raine<br>Towson, Baltimore County | 1939 |
| Clinton L. Riggs<br>Latrobe Apartments, Baltimore | 1942 |
| Mrs. John L. Whitehurst<br>3902 St. Paul Street, Baltimore | 1938 |

## OFFICERS OF ADMINISTRATION

Raymond A. Pearson, M.S., Dr. Agr., LL.D., President.

H. C. Byrd, B.S., Vice-President.

H. J. Patterson, D.Sc., Director of the Agricultural Experiment Station; Dean of the College of Agriculture.

T. B. Symons, M.S., D.Agr., Director of the Extension Service.

A. N. Johnson, S.B., D.Eng., Dean of the College of Engineering.

T. H. Taliaferro, C.E., Ph.D., Dean of the College of Arts and Sciences.

J. M. H. Rowland, M.D., Dean of the School of Medicine.

Henry D. Harlan, LL.D., Dean Emeritus of the School of Law.

Roger Howell, A.B., LL.B., Ph.D., Dean of the School of Law.

E. Frank Kelly, Phar.D., Advisory Dean of the School of Pharmacy.

Andrew G. DuMez, Ph.D., Dean of the School of Pharmacy.

T. O. Heatwole, M.D., D.D.S., Secretary of the Baltimore Schools.

J. Ben Robinson, D.D.S., Dean of the School of Dentistry.

W. S. Small, Ph.D., Dean of the College of Education.

M. Marie Mount, M.A., Dean of the College of Home Economics.

C. O. Appleman, Ph.D., Dean of the Graduate School.

Adele H. Stamp, M.A., Dean of Women (College Park).

Alvan C. Gillem, Jr., Major Inf. (D. O. L.), Professor of Military Science and Tactics.

H. T. Casbarian, Comptroller (College Park).

W. M. Hillegeist, Registrar (Baltimore).

Alma H. Preinkert, M.A., Assistant Registrar (College Park).

Leonard Hays, M.D., University Physician (College Park).

H. L. Crisp, M.M.E., Superintendent of Buildings (College Park).

T. A. Hutton, A.B., Purchasing Agent and Manager of Students' Supply Store (College Park).

Grace Barnes, B.S., B.L.S., Librarian (College Park).

## OFFICERS OF INSTRUCTION

For the Year 1934-1935.

### At College Park

### PROFESSORS

C. O. Appleman, Ph.D., Professor of Botany and Plant Physiology, Dean of the Graduate School.

Hayes Baker-Crothers, Ph.D., Professor of History and Political Science.

Grace Barnes, B.S., B.L.S., Librarian.

John H. Beaumont, Ph.D., Professor of Horticulture.

F. W. Besley, Ph.D., Professor of Farm Forestry, State Forester.

L. B. Broughton, Ph.D., Professor of Chemistry, State Chemist, Chairman of the Pre-Medical Committee.

W. H. Brown, Ph.D., Professor of Economics and Sociology.

O. C. Bruce, M.S., Professor of Soil Technology.

B. E. Carmichael, M.S., Professor of Animal Husbandry.

R. W. Carpenter, A.B., LL.B., Professor of Agricultural Engineering.

E. N. Cory, Ph.D., Professor of Entomology, State Entomologist.

H. F. Cotterman, Ph.D., Professor of Agricultural Education and Rural Sociology.

Myron Creese, B.S., E.E., Professor of Electrical Engineering.

S. H. DeVault, Ph.D., Professor of Agricultural Economics.

Nathan L. Drake, Ph.D., Professor of Organic Chemistry.

C. G. Eichlin, A.B., M.S., Professor of Physics.

Alvan C. Gillem, Jr., Major Inf. (D.O.L.), Professor of Military Science and Tactics.

Harry Gwinner, M.E., Professor of Engineering Mathematics.

Malcolm Haring, Ph.D., Professor of Physical Chemistry.

Homer C. House, Ph.D., Professor of the English Language and Literature.

A. N. Johnson, S.B., D.Eng., Professor of Highway Engineering, Director of Engineering Research, Dean of the College of Engineering.

W. B. Kemp, Ph.D., Professor of Genetics and Agronomy, Assistant Dean of the College of Agriculture.

B. T. Leland, B.S., M.A., Professor of Trade and Industrial Education.

Edgar F. Long, Ph.D., Professor of Education.

C. L. Mackert, M.A., Professor of Physical Education for Men.

H. B. McDonnell, M.S., M.D., Professor of Agricultural Chemistry.

Frieda M. McFarland, M.A., Professor of Textiles and Clothing.

Edna B. McNaughton, M.A., Professor of Home Economics Education.

DeVoe Meade, Ph.D., Professor of Animal and Dairy Husbandry.

J. E. Metzger, B.S., M.A., Professor of Agronomy and Assistant Director of the Experiment Station.

J. A. Miller, B.S., Administrative Coördinator of Practice Teaching.

M. Marie Mount, M.A., Professor of Home and Institution Management, Dean of the College of Home Economics.

J. N. G. Nesbit, B.S., M.E., E.E., Professor of Mechanical Engineering.

J. B. S. Norton, M.S., D.Sc., Professor of Systematic Botany and Mycology.

H. J. Patterson, D.Sc., Director of the Agricultural Experiment Station, Dean of the College of Agriculture.

C. J. Pierson, A.M., Professor of Zoology.

R. C. Reed, Ph.B., D.V.M.,Professor of Bacteriology and Animal Pathology.

C. S. Richardson, A.M., Professor of Public Speaking.

A. L. Schrader, Ph.D., Professor of Pomology and Pomologist of the Experiment Station.

W. S. Small, Ph.D., Professor of Education, Dean of the College of Education, Director of the Summer Session.

Thos. H. Spence, A.M., Professor of Classical Languages and Literatures, Dean Emeritus of the College of Arts and Sciences.

J. W. Sprowls, Ph.D., Professor of Educational Psychology.

Adele H. Stamp, M.A., Dean of Women.

S. S. Steinberg, B.E., C.E., Professor of Civil Engineering.

T. H. Taliaferro, C.E., Ph.D., Professor of Mathematics, Dean of the College of Arts and Sciences.

W. T. L. Taliaferro, A.B., D.Sc., Professor of Farm Management.

C. E. Temple, M.A., Professor of Plant Pathology, State Plant Pathologist.

A. S. Thurston, M.S., Professor of Floriculture and Landscape Gardening.

R. V. Truitt, Ph.D., Professor of Zoology and Aquiculture.

R. H. Waite, B.S., Professor of Poultry Husbandry.

A. E. Zucker, Ph.D., Professor of Modern Languages and Comparative Literature.

## LECTURERS

E. C. Auchter, Ph.D., U. S. Department of Agriculture, Lecturer in Pomology.

V. R. Boswell, Ph.D., Senior Olericulturist, U. S. Department of Agriculture, Lecturer in Olericulture.

F. E. Gardner, Ph.D., Agent, U. S. Department of Agriculture, Lecturer in Pomology (Plant Propagation).

L. H. James, Ph.D., Food Research Division, Bureau of Chemistry and Soils, U. S. Department of Agriculture, Lecturer in Food Bacteriology.

C. E. Resser, Ph.D., Curator, National Museum, Lecturer in Engineering Geology.

R. E. Snodgrass, A.B., Division of Insect Pathology and Morphology, Bureau of Entomology, U. S. Department of Agriculture, Lecturer in Insect Morphology.

Charles Thom, Ph.D., Principal Microbiologist, Bureau of Chemistry and Soils, U. S. Department of Agriculture, Lecturer in Soil Microbiology.

## ASSOCIATE PROFESSORS

Ronald Bamford, Ph.D., Associate Professor of Botany.

L. A. Black, Ph.D., Associate Professor of Bacteriology.

Tobias Dantzig, Ph.D., Associate Professor of Mathematics.

Geary Eppley, M.S., Associate Professor of Agronomy.

W. H. Falls, Ph.D., Associate Professor of Modern Languages.

Charles B. Hale, Ph.D., Associate Professor of English.

Susan Emolyn Harman, Ph.D., Associate Professor of English.

L. J. Hodgins, B.S., Associate Professor of Electrical Engineering.

L. W. Ingham, M.S., Associate Professor of Dairy Production.

C. F. Kramer, A.M., Associate Professor of Modern Languages.

H. S. McConnell, M.S., Associate Professor of Entomology.

A. W. Richeson, Ph.D., Associate Professor of Mathematics (Baltimore).

R. P. Thomas, Ph.D., Associate Professor of Soil Technology.

Claribel P. Welsh, M.A., Associate Professor of Foods.

S. W. Wentworth, B.S., Associate Professor of Pomology.

Charles E. White, Ph.D., Associate Professor of Chemistry.

R. C. Wiley, Ph.D., Associate Professor of Analytical Chemistry.

## ASSISTANT PROFESSORS

Russell B. Allen, B.S., Assistant Professor of Civil Engineering.

Wayland S. Bailey, M.S., Assistant Professor of Mechanical Engineering.

Henry Brechbill, M.A., Assistant Professor of Education.

H. B. Cordner, M.S., Assistant Professor of Olericulture.

Eugene B. Daniels, Ph.D., M.F.S., Assistant Professor of Economics.

G. A. Greathouse, Ph.D., Assistant Professor of Plant Physiology and Biophysics.

John W. Harmony, 1st Lieut. Inf. (D.O.L.), Assistant Professor of Military Science and Tactics.

H. B. Hoshall, B.S., Assistant Professor of Mechanical Engineering.

*Walter H. E. Jaeger, Ph.D., Assistant Professor of History and Political Science.

*V. Webster Johnson, Ph.M., Assistant Professor of Economics.

Kate Karpeles, M.D., Physician, Women's Department.

Paul Knight, M.S., Assistant Professor of Entomology.

F. M. Lemon, A.M., Assistant Professor of English.

Geo. Machwart, Ph.D., Assistant Professor of Industrial Chemistry.

Eleanor L. Murphy, M.A., Assistant Professor of Home Management.

M. W. Parker, Ph.D., Assistant Professor of Plant Physiology and Biochemistry.

N. E. Phillips, Ph.D., Assistant Professor of Zoology.

Dalton J. Pilcher, Ph.D., Assistant Professor of Economics.

M. A. Pyle, B.S., Assistant Professor of Civil Engineering.

Geo. D. Quigley, B.S., Assistant Professor of Poultry Husbandry.

---

*Absent on leave, 1934-1935.

Ralph Russell, M.S., Assistant Professor of Agricultural Economics.

J. H. Schad, M.A., Ed.D., Assistant Professor of Mathematics (Baltimore).

J. T. Spann, B.S., Assistant Professor of Mathematics.

E. B. Starkey, Ph.D., Assistant Professor of Organic Chemistry (Baltimore).

Guy P. Thompson, M.S., Assistant Professor of Zoology (Baltimore).

Everett L. Upson, Capt. Inf. (D.O.L.), Assistant Professor of Military Science and Tactics.

E. G. Vanden Bosche, Ph.D., Assistant Professor of Inorganic Chemistry (Baltimore).

Frank Ward, Capt. Inf. (D.O.L.), Assistant Professor of Military Science and Tactics.

R. M. Watkins, M.A., Assistant Professor of Public Speaking.

S. M. Wedeberg, B.A., C.P.A., Assistant Professor of Accountancy and Business Administration.

R. C. Yates, Ph.D., Assistant Professor of Mathematics.

## INSTRUCTORS

Geo. F. Alrich, M.S., E.E., Instructor in Mathematics.

Mary Barton, C.D.E.F., M.A., Instructor in Education, and Critic Teacher.

E. S. Bellman, A.M., Instructor in Sociology.

J. B. Blandford, Instructor in Horticulture, Horticultural Superintendent.

S. O. Burhoe, M.S., Instructor in Zoology.

O. C. Clark, B.S., Instructor in Physics.

Charles W. England, Ph.D., Instructor in Dairy Manufacturing.

J. E. Faber, Jr., M.S., Instructor in Bacteriology.

R. T. Fitzhugh, M.A., Instructor in English.

Gardner H. Foley, M.A., Instructor in English (Baltimore).

George W. Fogg, M.A., Instructor in Library Science; Reference and Loan Librarian.

Lucile Hartmann, B.S., M.A., Instructor in Foods, Nutrition, and Institution Management.

Earl Hendricks, Staff Sergeant (D.E.M.L.), Instructor in Military Science and Tactics.

L. C. Hutson, Instructor in Mining Extension.

Wm. H. McManus, Warrant Officer, Instructor in Military Science and Tactics.

C. R. Newcombe, Ph.D., Instructor in Zoology.

Arthur C. Parsons, A.M., Instructor in Modern Languages (Baltimore).

Elizabeth Phillips James, M.A., Instructor in Physical Education for Women.

Melvin A. Pittman, M.S., Instructor in Physics (Baltimore).

J. Thomas Pyles, M.A., Instructor in English (Baltimore).

Harlan Randall, Part-time Instructor in Music.

Edward F. Richards, Ph.D., Instructor in Modern Languages.

H. Hewell Roseberry, M.A., Instructor in Physics (Baltimore).

Otto Siebeneichen, Part-time Instructor in Music.

H. B. Shipley, Instructor in Physical Education.

Leo W. Simmons, Ph.D., Instructor in Sociology.

Kathleen M. Smith, A.B., Ed.M., Instructor in Education.

Reuben Steinmeyer, B.A., Instructor in Political Science.

Mrs. F. H. Westney, M.A., Instructor in Textiles and Clothing.

Helen Wilcox, M.A., Instructor in Modern Languages.

Leland G. Worthington, B.S., Instructor in Agricultural Education.

## ASSISTANTS

G. J. Abrams, M.S., Assistant in Entomology.

Jessie Blaisdell, Assistant in Music.

Constance Brown, M.A., Assistant in Public Speaking.

Rachel L. Carson, B.A., Assistant in Zoology (Baltimore).

Adelaide C. Clough, M.A., Assistant in Education and Critic Teacher.

Johnnie B. Coe, A.M., Assistant in English.

Franklin D. Cooley, A.M., Assistant in English.

W. G. Friedrich, Ph.D., Assistant in Modern Languages (Baltimore).

Arthur M. Gibson, B.S., Assistant in Chemistry (Baltimore).

Agnes Lee Gingell, B.S., Assistant in Department of Physical Education for Women.

Arthur B. Hamilton, B.S., Assistant in Agricultural Economics.

Donald Hennick, Assistant in Mechanical Engineering.

Audrey Killiam, B.S., Assistant in Home Economics.

Mary Jane McCurdy, B.S., Assistant in Home Economics.

C. D. Murphy, A.M., Assistant in English.

J. F. O'Brien, B.S., Assistant in Zoology (Baltimore).

Mark Schweizer, M.A., Assistant in Modern Languages.

Florence T. Simonds, Ph.D., Assistant in Botany.

W. C. Supplee, Ph.D., Assistant in Chemistry.

Arthur Silver, M.A., Assistant in History.

G. S. Weiland, Ph.D., Assistant in Chemistry.

Kate White, Assistant in Library.

Paschal Zapponi, B.S., Assistant in Chemistry.

## GRADUATE ASSISTANTS

### 1934-1935

| | |
|---|---|
| Wallace K. Bailey | Horticulture |
| Cecil R. Ball | English |
| M. Thomas Bartram | Bacteriology |
| William E. Bell | Agricultural Economics |
| Genevieve S. Blew | Modern Languages |
| Arthur D. Bowers | Chemistry |
| William P. Campbell | Chemistry |
| Arthur P. Dunnigan | Bacteriology |
| Helen Farrington | Modern Languages |
| Willard T. Haskins | Chemistry |
| M. Rankin Hatfield | Chemistry |
| William E. Hauver | Agricultural Economics |
| Claron E. Hesse | Horticulture |
| George F. Madigan | Agronomy |
| Earle D. Matthews | Agronomy |
| Winifred McMinimy | English |
| Russell Mead | Dairy Husbandry |
| C. Marion Mecham | Dairy Husbandry |
| Wilbur Nichols | Mathematics |
| Sterl A. Shrader | Chemistry |
| Edwin G. Stimpson | Chemistry |
| J. Clark White | Chemistry |
| Edgar P. Walls | Botany |
| Charles W. Williams | Mathematics |
| Mark W. Woods | Botany |

## FELLOWS

### 1934-1935

| | |
|---|---|
| Keith G. Acker | Animal Husbandry |
| Rolfe Lyman Allen | History |
| Earl J. Anderson | Plant Pathology |
| Helen Mary Bradley | Economics |
| David E. Derr | Agricultural Economics |
| Harry M. Duvall | Chemistry |
| Fred V. Grau | Agronomy |
| Elmer W. Greve | Horticulture |
| Donald M. Goss | Agronomy |
| Arthur B. Hersberger | Chemistry |
| William A. Horne | Chemistry |
| Robert P. Jacobsen | Chemistry |
| Mary Elizabeth Klinger | Bacteriology |
| John Richard King | Botany |
| Lewis P. McCann | Botany |
| Ralph W. Ruble | Agronomy |
| Louise T. Saylor | Education |
| Cornelius B. Shear | Plant Physiology |
| Fletcher P. Veitch, Jr. | Chemistry |
| Everett Weitzel | Agricultural Economics |
| Richard O. White | Entomology |

## LIBRARY STAFF (College Park)

| | |
|---|---|
| Grace Barnes, B.S., B.L.S. | Librarian |
| George W. Fogg, M.A. | Reference and Loan Librarian |
| Alma Hook, B.S. | Head Cataloguer |
| Louise W. Getchell | Cataloguer |
| Kate White | Assistant |

## INSPECTION AND REGULATORY SERVICE

### (Feeds, Fertilizer, and Lime)

| | |
|---|---|
| L. B. Broughton, Ph.D. | State Chemist |
| L. E. Bopst, B.S. | Associate State Chemist |
| E. C. Donaldson, M.S. | Chief Inspector |
| W. M. J. Footen | Inspector |
| E. M. Zentz | Inspector |
| H. R. Walls | Assistant Chemist and Micro-analyst |
| L. H. Van Wormer | Assistant Chemist |
| R. E. Baumgardner, B.S. | Assistant Chemist |
| Albert Heagy, B.S. | Assistant Chemist |
| W. C. Supplee, Ph.D. | Assistant Chemist |

## THE UNIVERSITY SENATE

Raymond A. Pearson, M.S., D.Agr., LL.D., President of the University.
H. C. Byrd, B.S., Vice-President.
H. J. Patterson, D.Sc., Director of the Agricultural Experiment Station, Dean of the College of Agriculture.
T. B. Symons, M.S., D.Agr., Director of the Extension Service.
A. N. Johnson, S.B., D.Eng., Dean of the College of Engineering.
T. H. Taliaferro, C.E., Ph.D., Dean of the College of Arts and Sciences.
J. M. H. Rowland, M.D., Dean of the School of Medicine.
Roger Howell, A.B., Ph.D., LL.B., Dean of the School of Law.
E. Frank Kelly, Phar.D., Advisory Dean of the School of Pharmacy.
Andrew G. DuMez, Ph.D., Dean of the School of Pharmacy.
T. O. Heatwole, M.D., D.D.S., Secretary of the Baltimore Schools.
J. Ben Robinson, D.D.S., Dean of the School of Dentistry.
W. S. Small, Ph.D., Dean of the College of Education.
M. Marie Mount, M.A., Dean of the College of Home Economics.
C. O. Appleman, Ph.D., Dean of the Graduate School.
Adele H. Stamp, M.A., Dean of Women.
Alvan C. Gillem, Jr., Major Inf. (D.O.L.), Head of the Department of Military Science and Tactics.
W. B. Kemp, Ph.D., Professor of Genetics and Agronomy, Assistant Dean of the College of Agriculture.
Alma H. Preinkert, M.A., Assistant Registrar, Secretary.

## THE GRADUATE SCHOOL COUNCIL

Raymond A. Pearson, M.S., D.Agr., LL.D., President of the University.
C. O. Appleman, Ph.D., Dean of the Graduate School, Chairman.
A. N. Johnson, D.Eng., Professor of Highway Engineering.
M. Marie Mount, M.A., Professor of Home and Institutional Management.
H. J. Patterson, D.Sc., Director of the Agricultural Experiment Station.
W. S. Small, Ph.D., Professor of Education.
T. H. Taliaferro, C.E., Ph.D., Professor of Mathematics.
E. C. Auchter, Ph.D., Professor of Horticulture.
J. H. Beaumont, Ph.D., Professor of Horticulture.
L. B. Broughton, Ph.D., Professor of Chemistry.
E. N. Cory, Ph.D., Professor of Entomology.
H. F. Cotterman, Ph.D., Professor of Agricultural Education.
H. C. House, Ph.D., Professor of the English Language and Literature.
DeVoe Meade, Ph.D., Professor of Animal and Dairy Husbandry.
A. E. Zucker, Ph.D., Professor of Modern Languages and Comparative Literature.
G. L. Jenkins, Ph.D., Professor of Pharmaceutical Chemistry (Baltimore).
Eduard Uhlenhuth, Ph.D., Professor of Gross Anatomy (Baltimore).

## FACULTY COMMITTEES

### At College Park

### ARBORETUM

Dr. Patterson, Chairman; Messrs. Beaumont and Thurston.

### ATHLETIC BOARD

Mr. Byrd, Chairman; Messrs. Broughton, Mackert, Bruce, and Richardson.

### BUILDINGS AND GROUNDS (TO ADVISE THE SUPERINTENDENT OF BUILDINGS AND GROUNDS)

Professor Metzger, Chairman; Messrs. Nesbit, W. T. L. Taliaferro, and Thurston.

### COMMENCEMENT

Dr. Symons, Chairman; Dean DuMez, Miss Mount, and Dean Robinson.

### CURRICULA

Dr. Kemp, Chairman; Messrs. Brechbill, Eichlin, Falls, Haring, Mrs. McFarland, and Professor Nesbit.

### ENTRANCE

Professor Cotterman, Chairman; Messrs. Bruce, Crothers, Hodgins, Miss Preinkert, Mr. Spann, and Mrs. Westney.

### EDUCATIONAL STANDARDS

Dean Appleman, Chairman; Deans Johnson, Mount, Patterson, Small, and Taliaferro; Miss Preinkert, Secretary.

### EXAMINATION PROCEDURE

Professor Haring, Chairman; Messrs. Bamford, Long, Mrs. Murphy, and Mr. Pyle.

### FACULTY-STUDENT RELATIONS

Dean Johnson, Chairman; Messrs. Bopst, Brechbill, Creese, Hays, Ingham, Mrs. McFarland, Miss Stamp, and Mr. Watkins.

### FRESHMAN WEEK

Professor Mackert, Chairman; Mr. Cordner, Dr. Hays, Miss Hartman, Mr. Hennick, Miss Stamp, Miss Preinkert, and Mr. Wedeberg.

### HEALTH

Dr. Hays, Chairman; Mr. Faber, Miss Hartman, Mr. McConnell, Dr. Reed, and Captain Ward.

### LIBRARY

Dr. House, Chairman; Miss Barnes, Miss Hartman, Dean Johnson, Messrs. Long, W. T. L. Taliaferro, and Dr. Zucker.

### NON-RESIDENT LECTURES

Professor Richardson, Chairman; Messrs. Drake, Eppley, Hale, Mrs. Murphy, and Dean Taliaferro.

### PRE-MEDICAL

Dr. Broughton, Chairman; Messrs. Black, Davis, Eichlin, Pierson, and Wiley.

### SCHOLARSHIPS

Professor Metzger, Chairman; Messrs. Cotterman, Eichlin, Miss Mount, and Professor Steinberg.

### SECTION ASSIGNMENT

Dr. White, Chairman; Messrs. Bamford, Burhoe, Hale, Kramer, Miss Preinkert, Mr. Pyle, Captain Ward, and Mrs. Welsh.

### STANDARDS OF UNDERGRADUATE ENGLISH

Dr. Hale, Chairman; Professor Creese, Dr. Falls, Mr. Greathouse, Dr. Long, and Miss McNaughton.

### STUDENT LIFE

Professor Eppley, Chairman; Messrs. Carpenter, Cotterman, Miss Harman, Messrs. Hoshall, Mackert, Messrs. Phillips, Pollock, Professor Steinberg, Mrs. Welsh, Dr. White, Miss Wilcox, and Dr. Yates.

## AGRICULTURAL EXPERIMENT STATION STAFF

| | |
|---|---|
| HARRY J. PATTERSON, D.Sc. | Director |

*Agricultural Economics:*

| | |
|---|---|
| S. H. DEVAULT, Ph.D. | Agricultural Economist |
| RALPH RUSSELL, M.S. | Assistant |
| W. PAUL WALKER, M.S. | Assistant |
| ARTHUR B. HAMILTON, M.S. | Assistant |

*Agricultural Engineering:*

| | |
|---|---|
| R. W. CARPENTER, A.B., LL.B. | Engineering |

*Agronomy (Crops and Soils):*

| | |
|---|---|
| †J. E. METZGER, B.S., M.A. | Agronomist |
| **W. B. KEMP, Ph.D. | Agronomist (Genetics) |
| G. EPPLEY, M.S. | Associate (Crops) |
| R. P. THOMAS, Ph.D. | Soil Technologist |
| O. C. BRUCE, M.S. | Associate Soil Technologist |
| E. H. SCHMIDT, M.S. | Assistant (Soils) |
| H. B. WINANT, M.S. | Assistant (Soils) |
| R. G. ROTHGEB, Ph.D. | Associate (Plant Breeding) |
| R. L. SELLMAN, B.S. | Assistant |

*Animal and Dairy Husbandry:*

| | |
|---|---|
| DEVOE MEADE, Ph.D. | Dairy and Animal Husbandman |
| B. E. CARMICHAEL, M.S. | Animal Husbandman |
| L. W. INGHAM, M.S. | Associate (Dairy Production) |
| M. H. BERRY, M.S. | Assistant (Dairy Husbandry) |
| CHARLES W. ENGLAND, Ph.D. | Assistant (Dairy Manufacturing) |
| W. C. SUPPLEE, Ph.D. | Chemist |
| H. L. AYRES | Assistant (Dairy Manufacturing) |

*Animal Pathology and Bacteriology:*

| | |
|---|---|
| R. C. REED, Ph.B., D.V.M. | Pathologist |
| *A. L. BRUECKNER, B.S., D.V.M. | Associate Pathologist |
| L. J. POELMA, D.V.M., M.S. | Assistant |
| H. M. DEVOLT, M.S., D.V.M. | Assistant (Poultry Diseases) |
| C. L. EVERSON, D.V.M. | Assistant |
| *ALEX. GOW, D.V.M. | Assistant |
| *C. R. DAVIS, M.S., D.V.M. | Assistant (Poultry Diseases) |
| M. T. BARTRAM, M.S. | Assistant (Meat Curing) |
| *I. M. MOULTHROP, D.V.M. | Assistant (Poultry Diseases) |

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† Assistant Director.
* Live Stock Sanitary Laboratory.
** Assistant Dean, College of Agriculture.

*Botany, Pathology, Physiology:*

| | |
|---|---|
| **C. O. APPLEMAN, Ph.D. | Physiologist |
| J. B. S. NORTON, M.S., D.Sc. | Pathologist |
| C. E. TEMPLE, M.S. | Pathologist |
| R. A. JEHLE, Ph.D. | Associate Pathologist |
| RONALD BAMFORD, Ph.D. | Associate Botanist |
| GLENN A. GREATHOUSE, Ph.D. | Assistant Physiologist |
| M. W. PARKER, Ph.D. | Assistant Physiologist |
| NEIL W. STUART, Ph.D. | Assistant Physiologist |
| JOHN W. HEUBERGER, Ph.D. | Assistant Pathologist |

*Entomology:*

| | |
|---|---|
| E. N. CORY, Ph.D. | Entomologist |
| H. S. MCCONNELL, B.S. | Associate |
| GEO. S. LANGFORD, Ph.D. | Associate |
| L. P. DITMAN, Ph.D. | Assistant |
| C. GRAHAM, M.S. | Assistant |
| GEO. ABRAMS, M.S. | Assistant (Bees) |

*Horticulture:*

| | |
|---|---|
| J. H. BEAUMONT, Ph.D. | Horticulturist |
| T. H. WHITE, M.S. | Olericulturist and Floriculturist |
| A. L. SCHRADER, Ph.D. | Pomologist |
| S. W. WENTWORTH, B.S. | Associate Pomologist |
| *F. E. GARDNER, Ph.D. | Pomologist (Plant Propagation) |
| F. B. LINCOLN, Ph.D. | Associate (Plant Propagation) |
| H. B. CORDNER, Ph.D. | Assistant Olericulturist |
| W. A. FRAZIER, Ph.D. | Assistant (Canning Crops) |
| J. B. BLANDFORD | Assistant Superintendent of Farm |

*Poultry Husbandry:*

| | |
|---|---|
| R. H. WAITE, B.S. | Poultry Husbandman |
| GEO. D. QUIGLEY, B.S. | Associate |

*Ridgely Sub-Station:*

| | |
|---|---|
| ALBERT WHITE, B.S. | Superintendent |

*Seed Inspection:*

| | |
|---|---|
| F. S. HOLMES, B.S. | Inspector |
| ELLEN EMACK | Assistant Analyst |
| OLIVE KELK | Assistant Analyst |
| ELIZABETH SHANK | Assistant |

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* Agent U. S. Department of Agriculture.
** Dean of Graduate School.

# EXTENSION SERVICE STAFF

| | |
|---|---|
| *THOMAS B. SYMONS, M.S., D.Agr. | Director |
| *E. I. OSWALD, B.S. | County Agent Leader |
| *E. G. JENKINS | State Boys' Club Agent |
| *MISS VENIA M. KELLAR, B.S. | State Home Demonstration Agent |
| *MISS DOROTHY EMERSON | Girls' Club Agent |
| *MISS HELEN SHELBY, M.A. | Clothing Specialist |
| *MISS MARGARET MCPHEETERS, M.S. | Nutrition Specialist |
| *MISS FLORENCE H. MASON, B.S., | District County Home Demonstration Agent |
| *MISS K. G. CONNOLLY | Administrative Assistant |
| *GEORGE J. ABRAMS, M.S. | Specialist in Apiculture |
| *W. R. BALLARD, B.S. | Specialist in Vegetable and Landscape Gardening |
| H. C. BARKER, B.S. | Specialist in Dairying Advanced Registry Testing |
| W. C. BEAVEN, B.S. | Marketing Inspector |
| *P. D. BROWN, B.S. | Specialist in Tobacco |
| †SAM L. CROSTHWAIT, B.S. | Assistant Entomologist |
| †R. W. CARPENTER, A.B., LL.B. | Specialist in Agricultural Engineering |
| *O. R. CARRINGTON, B.A. | Assistant Specialist in Agricultural Journalism |
| *J. A. CONOVER, B.S. | Specialist in Dairying |
| †E. N. CORY, Ph.D. | Specialist in Entomology |
| †S. H. DEVAULT, Ph.D. | Specialist in Marketing |
| †L. P. DITMAN, Ph.D. | Assistant Entomologist |
| †CASTILLO GRAHAM, M.S. | Assistant Specialist in Entomology |
| †J. W. HEUBERGER, M.S. | Horticultural Inspector |
| *T. D. HOLDER, B.S. | Specialist in Canning Crops |
| *H. A. HUNTER, M.S. | Canning Crop Pathologist |
| †R. A. JEHLE, Ph.D. | Specialist in Plant Pathology |
| *A. V. KREWATCH, B.S., M.S., E.E. | Assistant in Rural Electrification |
| G. S. LANGFORD, Ph.D. | Specialist in Insect Control |
| †DEVOE MEADE, Ph.D. | Specialist in Animal Husbandry |
| †A. E. MERCKER | Specialist in Marketing |
| *PAUL E. NYSTROM, M.S. | Assistant County Agent Leader and Farm Management Specialist |
| *F. W. OLDENBURG, B.S. | Specialist in Agronomy |
| *PAUL A. RAPER, B.S. | Specialist in Poultry Certification and Marketing |
| *W. H. RICE, B.S. | Specialist in Poultry |

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*** In co-operation with the United States Department of Agriculture.**
**† Devoting part time to Extension Work.**

| | |
|---|---|
| †C. S. Richardson, A.M. | Specialist in Educational Extension |
| *K. J. Seigworth, B.S. | Extension Forester |
| S. B. Shaw, B.S. | Chief, Maryland State Department of Markets |
| *Mark M. Shoemaker, A.B., M.L.D., | Assistant Specialist in Landscape Gardening |
| *A. H. Snyder, B.S. | Extension Editor |
| †C. E. Temple, M.A. | Specialist in Plant Pathology |
| *J. M. Vial, B.S. | Animal Husbandman |
| *A. F. Vierheller, M.S. | Specialist in Horticulture |
| †E. P. Walls, M.S. | Marketing Inspector |
| Mark F. Welsh, B.S., D.V.M. | Inspector in Charge of Hog Cholera |

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* In co-operation with the United States Department of Agriculture.
† Devoting part time to Extension work.

## COUNTY AGENTS

| *County* | *Name* | *Headquarters* |
|---|---|---|
| Allegany | *R. F. McHenry, B.S. | Cumberland |
| Anne Arundel | *S. E. Day, B.S. | Annapolis |
| Baltimore | *H. B. Derrick, B.S. | Towson |
| Calvert | *John B. Morsell, B.S. | Prince Frederick |
| Caroline | *W. H. Evans, B.S. | Denton |
| Carroll | *L. C. Burns, B.S. | Westminster |
| Cecil | *J. Z. Miller, B.S. | Elkton |
| Charles | *Paul D. Brown, B.S. | La Plata |
| Dorchester | *Wm. R. McKnight, B.S. | Cambridge |
| Frederick | *H. R. Shoemaker, B.S., M.A. | Frederick |
| Garrett | *John H. Carter, B.S. | Oakland |
| Harford | *H. M. Carroll, B.S. | Bel Air |
| Howard | *J. W. Magruder, B.S. | Ellicott City |
| Kent | *James R. McVean, B.S. | Chestertown |
| Montgomery | *O. W. Anderson, M.S. | Rockville |
| Prince George's | *P. E. Clark, B.S. | Upper Marlboro |
| Queen Anne's | *K. W. Baker, B.S. | Centerville |
| St. Mary's | *J. J. Johnson | Leonardtown |
| Somerset | *C. Z. Keller, B.S. | Princess Anne |
| Talbot | *R. S. Brown, B.S. | Easton |
| Washington | *M. D. Moore, M.S. | Hagerstown |
| Wicomico | *J. P. Brown, B.S. | Salisbury |
| Worcester | *R. T. Grant, B.S. | Snow Hill |

### Assistant County Agents

| | | |
|---|---|---|
| Allegany | *M. S. Downey, B.S. | Cumberland |
| Baltimore | *W. H. Carroll, B.S. | Towson |
| Charles | *Bergen Brown | La Plata |
| Harford | *G. W. Clendaniel | Bel Air |
| Kent | *Stanley Sutton | Chestertown |
| Montgomery | *A. A. Ady, B.S. | Rockville |
| St. Mary's | G. F. Wathen | Leonardtown |

### Local Agents—Negro Work

| | | |
|---|---|---|
| Southern Md. | *J. F. Armstrong | Seat Pleasant |
| Eastern Shore | *L. H. Martin | Princess Anne |

## COUNTY HOME DEMONSTRATION AGENTS

| *County* | *Name* | *Headquarters* |
|---|---|---|
| Allegany | *Maud A. Bean | Cumberland |
| Anne Arundel | *Mrs. G. Linthicum, B.S. | Annapolis |
| Baltimore | *Anna Trentham, B.S. | Towson |
| Calvert | *E. Elaine Knowles | Prince Frederick |
| Caroline | *Bessie M. Spafford, B.S. | Denton |
| Carroll | *Agnes Slindee, B.A. | Westminster |
| Cecil | *Viola G. Cook, A.B. | Elkton |
| Charles | *Mary Graham | La Plata |
| Dorchester | *Hattie E. Brooks, A.B. | Cambridge |
| Frederick | *Helen E. Pearson, B.S. | Frederick |
| Garrett | *Margaret K. Burtis, B.S. | Oakland |
| Harford | *Catharine Maurice, B.S. | Bel Air |
| Howard | *Martha E. Manahan, A.B. | Ellicott City |
| Kent | *Helen N. Schellinger | Chestertown |
| Montgomery | *Edythe M. Turner | Rockville |
| Prince George's | *Ethel M. Regan | Hyattsville |
| St. Mary's | *Ethel Joy | Leonardtown |
| Somerset | *Hilda Topfer, B.S. | Princess Anne |
| Talbot | *Margaret Smith | Easton |
| Washington | *Ardath Martin, B.S. | Hagerstown |
| Wicomico | Marian G. Swanson | Salisbury |
| Worcester | *Lucy J. Walter | Snow Hill |

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* In co-operation with the United States Department of Agriculture.

### Local Home Demonstration Agents—Negro Work

| | | |
|---|---|---|
| Somerset | Mrs. Justine C. Clark | Princess Anne |
| Charles, St. Mary's, and Prince George's | Mrs. Arminta J. Dixon | 1812 Vernon St., N. W., Washington, D. C. |

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## OFFICERS OF INSTRUCTION

(For the Year 1934-1935)

### At Baltimore

### PROFESSORS

George M. Anderson, D.D.S., F.A.C.D., Professor of Comparative Dental Anatomy and Orthodontia.

Charles Bagley, Jr., A.B., M.D., Professor of Neurological Surgery.

Robert P. Bay, M.D., F.A.C.S., Professor of Anatomy and Oral Surgery (Dentistry); Professor of Oral Surgery (Medicine).

Harvey G. Beck, M.D., Sc.D., Professor of Clinical Medicine.

Charles F. Blake, A.M., M.D., Professor of Proctology.

L. B. Broughton, Ph.D., Professor of Chemistry.

A. James Casner, A.B., LL.B., Professor of Law.

R. M. Chapman, M.D., Professor of Psychiatry.

Clyde A. Clapp, M.D., Professor of Ophthalmology.

Albertus Cotton, A.M., M.D., Professor of Orthopaedic Surgery and Roentgenology.

Annie Crighton, R.N., Superintendent of Nurses, Director of the School of Nursing.

J. Frank Crouch, M.D., Professor Emeritus of Clinical Ophthalmology and Otology.

David M. R. Culbreth, A.M., Ph.G., M.D., Professor Emeritus of Botany and Materia Medica.

Carl L. Davis, M.D., Professor of Anatomy.

S. Griffith Davis, A.B., M.D., Professor of Anesthesia.

L. H. Douglas, M.D., Professor of Clinical Obstetrics.

J. W. Downey, M.D., Professor of Otology.

Andrew G. DuMez, Ph.G., Ph.D., Professor of Pharmacy, Dean of the School of Pharmacy.

Page Edmunds, M.D., Professor of Traumatic Surgery.

Charles Reid Edwards, M.D., Professor of Clinical Surgery.

C. G. Eichlin, A.B., M.S., Professor of Physics.

Edgar B. Friedenwald, M.D., Professor of Clinical Pediatrics.

Harry Friedenwald, A.B., M.D., Professor Emeritus of Ophthalmology.

Julius Friedenwald, A.M., M.D., Professor of Gastro-Enterology.

William S. Gardner, M.D., Professor of Gynecology.

Oren H. Gaver, D.D.S., F.A.C.D., Professor of Metallurgy and Physiology.

Joseph E. Gichner, M.D., Professor of Clinical Medicine and Physical Therapeutics.

A. J. Gillis, M.D., Clinical Professor of Genito-Urinary Diseases.

Andrew C. Gillis, A.M., M.D., LL.D., Professor of Neurology.

Frank W. Hachtel, M.D., Professor of Bacteriology.

Hon. Henry D. Harlan, A.M., LL.B., LL.D., Dean Emeritus of the School of Law.

Roger Howell, A.B., LL.B., Ph.D., Professor of Law, Dean of the School of Law.

Elliott H. Hutchins, A.M., M.D., Professor of Clinical Surgery.

Burt B. Ide, D.D.S., F.A.C.D., Professor of Operative Dentistry.

Glenn L. Jenkins, Ph.G., Ph.D., Professor of Pharmaceutical Chemistry.

F. L. Jennings, M.D., Professor of Clinical Surgery.

C. Loring Joslin, M.D., Professor of Pediatrics.

M. Randolph Kahn, M.D., Clinical Professor of Ophthalmology.

E. Frank Kelly, Phar.D., D.S.C., Professor Emeritus of Chemistry (Dentistry); Advisory Dean of the School of Pharmacy.

John C. Krantz, Jr., Ph.D., Professor of Pharmacology.

T. Fred Leitz, M.D., Clinical Professor of Gastro-Enterology.

Benjamin T. Leland, B.S., M.A., Professor of Trade and Industrial Education.

G. Milton Linthicum, A.M., M.D., Professor of Diseases of the Rectum and Colon.

G. Carroll Lockard, M.D., Professor of Clinical Medicine.

A. J. Lomas, M.D., D.P.H., Superintendent of the University Hospital.

Edward A. Looper, M.D., D. Oph., Professor of Diseases of the Nose and Throat.

Frank S. Lynn, M.D., Professor of Clinical Surgery.

Howard J. Maldeis, M.D., Professor of Embryology and Histology (Dentistry); Associate Professor of Medical Jurisprudence (Medicine).

Alexius McGlannan, A.M., M.D., LL.D., Professor of Surgery.

Robert L. Mitchell, Phar.D., M. D., Professor of Bacteriology and Pathology.

John Rathbone Oliver, A.B., M.D., Ph.D., Professor of the History of Medicine.

Alexander H. Paterson, D.D.S., F.A.C.D., Professor of Crown and Bridge, and Prosthetic Dentistry.

C. J. Pierson, A.M., Professor of Zoology.

Maurice C. Pincoffs, B.S., M.D., Professor of Medicine.

J. Dawson Reeder, M.D., Clinical Professor of Diseases of the Rectum and Colon.

G. Kenneth Reiblich, A.B., Ph.D., J.D., Professor of Law.

Compton Riely, M.D., Clinical Professor of Orthopaedic Surgery.

Harry M. Robinson, M.D., Professor of Clinical Dermatology.

J. Ben. Robinson, D.D.S., F.A.C.D., Professor of Dental Anatomy and Operative Technics, Dean of the School of Dentistry.

J. M. H. Rowland, M.D., Professor of Obstetrics, Dean of the School of Medicine.

Edwin G. W. Ruge, A.B., LL.B., Professor of Law.

Frank Dyer Sanger, M.D., Professor Emeritus of Rhinology and Laryngology.

William H. Schultz, Ph.B., Ph.D., Research Professor of Pharmacology.

Arthur M. Shipley, M.D., Sc.D., Professor of Surgery.

W. S. Smith, M.D., Clinical Professor of Gynecology.

Irving J. Spear, M.D., Professor of Neurology.

Hugh R. Spencer, M.D., Professor of Pathology.

Harry M. Stein, M.D., Professor of Clinical Medicine.

John S. Strahorn, Jr., A.B., LL.B., S.J.D., J.S.D., Professor of Law.

Marvin R. Thompson, Ph.C., Ph.D., Emerson Professor of Pharmacology.

W. H. Toulson, A.B., M.Sc., M.D., Professor of Genito-Urinary Surgery.

Eduard Uhlenhuth, Ph.D., Professor of Anatomy.

Allen Fiske Voshell, A.B., M.D., Professor of Orthopaedic Surgery.

Henry J. Walton, M.D., Professor of Roentgenology.

Leo A. Walzak, D.D.S., Professor of Periodontia.

Huntington Williams, M.D., Dr. P.H., Professor of Hygiene and Public Health.

John R. Winslow, A.B., M.D., Professor Emeritus of Rhinology and Laryngology.

Nathan Winslow, A.M., M.D., Professor of Clinical Surgery.

Randolph Winslow, A.M., M.D., LL.D., Professor Emeritus of Surgery.

Walter D. Wise, M.D., Professor of Clinical Surgery.

J. Carlton Wolf, Phar.D., Sc.D., Professor of Dispensing Pharmacy.

H. Boyd Wylie, M.D., Professor of Biological Chemistry.

Waitman F. Zinn, M.D., Clinical Professor of Diseases of the Nose and Throat.

## ASSOCIATE PROFESSORS

Walter A. Baetjer, A.B., M.D., Associate Professor of Medicine.

J. McFarland Bergland, M.D., Associate Professor of Obstetrics.

Thomas R. Chambers, A.M., M.D., Associate Professor of Surgery.

Paul W. Clough, B.S., M.D., Associate Professor of Medicine.

B. Olive Cole, Phar.D., LL.B., Associate Professor of Economics and Pharmaceutical Law.

Sydney M. Cone, A.B., M.D., Associate Professor of Pathology.

A. M. Evans, M.D., Associate Professor of Surgery.

H. K. Fleck, M.D., Associate Professor of Ophthalmology.

Moses Gellman, B.S., M.D., Associate Professor of Orthopaedic Surgery.

O. G. Harne, Associate Professor of Physiology.

Edward S. Johnson, M.D., Associate Professor of Surgery.

C. C. W. Judd, A.B., M.D., Associate Professor of Medicine.

R. W. Locher, M.D., Associate Professor of Clinical Surgery.

Sydney R. Miller, A.B., M.D., Associate Professor of Medicine.

Theodore H. Morrison, M.D., Associate Professor of Gastro-Enterology.

Emil Novak, M.D., Associate Professor of Obstetrics.

D. J. Pessagno, M.D., Associate Professor of Surgery.

Charles A. Reifschneider, M.D., Associate Professor of Surgery and Oral Surgery (Medicine); Assistant Professor of Oral Surgery (Dentistry).

A. W. Richeson, Ph.D., Associate Professor of Mathematics.

Ferd. A. Ries, M.D., Associate Professor of Physiology.

Harry L. Rogers, M.D., Associate Professor of Orthopaedic Surgery.

Abram S. Samuels, M.D., Associate Professor of Gynecology.

G. M. Settle, A.B., M.D., Associate Professor of Neurology and Clinical Medicine.

William H. Smith, M.D., Associate Professor of Clinical Medicine.

Ralph P. Truitt, M.D., Associate Professor of Psychiatry.

Henry E. Wich, Phar.D., Associate Professor of Inorganic and Analytical Chemistry.

## ASSISTANT PROFESSORS

Myron S. Aisenberg, D.D.S., F.A.C.D., Assistant Professor of Embryology and Histology.

Marvin J. Andrews, B.S. in Phar., M.S., Assistant Professor of Pharmacy.

Thomas B. Aycock, B.S., M.D., Assistant Professor of Anatomy, and Associate in Surgery.

Arthur H. Bryan, V.M.D., B.S., M.A., Assistant Professor of Bacteriology.

Brice M. Dorsey, D.D.S., Assistant Professor of Exodontia (Dentistry); Instructor in Exodontia (Medicine).

Maurice Feldman, M.D., Assistant Professor of Gastro-Enterology.

Leon Freedom, M.D., Assistant Professor of Neurology, and Instructor in Pathology.

Grayson W. Gaver, D.D.S., Assistant Professor of Prosthetic Dentistry.

Harry Goldsmith, M.D., Assistant Professor of Psychiatry.

John G. Huck, M.D., Assistant Professor of Medicine.

Orville C. Hurst, D.D.S., Assistant Professor of Clinical Crown and Bridge.

Albert Jaffe, M.D., Assistant Professor of Pediatrics.

S. Lloyd Johnson, A.B., LL.B., M.D., Assistant Professor of Medicine.

George C. Karn, D.D.S., Assistant Professor of Radiodontia.

L. A. M. Krause, M.D., Assistant Professor of Medicine.

Harry E. Latcham, D.D.S., F.A.C.D., Assistant Professor of Operative Dentistry.

Milford Levy, M.D., Assistant Professor of Neurology.

W. S. Love, Jr., A.B., M.D., Assistant Professor of Medicine, and Instructor in Pathology.

Clarence E. Macke, M.D., Assistant Professor of Pediatrics.

Harry B. McCarthy, D.D.S., Assistant Professor of Dental Anatomy.

George McLean, M.D., Assistant Professor of Medicine.

Harry M. Murdock, M.D., Assistant Professor of Psychiatry.

H. W. Newell, M.D., Assistant Professor of Psychiatry.

Walter L. Oggesen, D.D.S., Assistant Professor of Crown and Bridge.

H. R. Peters, M.D., Assistant Professor of Medicine.

J. Harry Schad, M.A., LL.B., Ed.D., Assistant Professor of Mathematics.

Emil G. Schmidt, Ph.D., LL.B., Assistant Professor of Biological Chemistry.

Edgar B. Starkey, Ph.D., Assistant Professor of Organic Chemistry.

A. Allen Sussman, D.D.S., A.B., M.D., Assistant Professor of Anatomy.

Vesta L. Swartz, R.N., Assistant Superintendent of Nurses.

Guy P. Thompson, M.S., Assistant Professor of Zoology.

John H. Traband, M.D., Assistant Professor of Pediatrics.

E. G. Vanden Bosche, Ph.D., Assistant Professor of Inorganic and Physical Chemistry.

C. Gardner Warner, M.D., Assistant Professor of Pathology.

J. Herbert Wilkerson, M.D., Assistant Professor of Anatomy.

Lawrence F. Wooley, M.D., Assistant Professor of Psychiatry.

Robert B. Wright, M.D., Assistant Professor of Pathology.

## LECTURERS

Alfred Bagby, Jr., A.B., Ph.D., LL.B., Lecturer on Testamentary Law.

J. Wallace Bryan, A.B., LL.B., Ph.D., Lecturer on Carriers and Public Utilities, and Pleading.

James T. Carter, A.B., LL.B., Ph.D., Lecturer on Legal Bibliography.

Hon. W. Calvin Chestnut, A.B., LL.B., Lecturer on Insurance and Federal Procedure.

Walter L. Clark, LL.B., Lecturer on Evidence.

Edwin T. Dickerson, A.B., LL.B., A.M., Lecturer on Contracts.

Hon. Eli Frank, A.B., LL.B., Lecturer on Torts.

Jonas Friedenwald, A.B., M.D., Lecturer on Ophthalmic Pathology.

T. O. Heatwole, D.D.S., M.D., D.Sc., Lecturer on Ethics and Jurisprudence; Secretary of the Baltimore Schools.

Richard C. Leonard, D.D.S., Lecturer on Oral Hygiene and Preventive Dentistry.

John M. McFall, A.B., A.M., LL.B., Lecturer on Suretyship, Mortgages, and Insurance.

Emory H. Niles, A.B., M.A., B.C.L., LL.B., Lecturer on Admiralty.

Charles G. Page, A.B., LL.B., Lecturer on Suretyship and Mortgages.

G. Ridgely Sappington, LL.B., Lecturer on Practice; Director of Practice Court.

William H. Triplett, M.D., Lecturer on Physical Diagnosis (Dentistry); Assistant in Medicine (Medicine).

R. Dorsey Watkins, A.B., Ph.D., LL.B., Lecturer on Torts.

## ASSOCIATES

John R. Abercrombie, A.B., M.D., Associate in Dermatology.

Franklin B. Anderson, M.D., Associate in Diseases of the Nose and Throat, and Otology.

H. F. Bongardt, M.D., Associate in Surgery.

Leo Brady, M.D., Associate in Gynecology.

H. M. Bubert, M.D., Associate in Medicine, and Assistant in Bacteriology.

T. Nelson Carey, M.D., Associate in Medicine, and Physician in Charge of Medical Care of Students.

CARL DAME CLARKE, Associate in Art as Applied to Medicine.
RICHARD G. COBLENTZ, M.D., Associate in Neurological Surgery.
J. S. EASTLAND, M.D., Associate in Medicine.
MONTE EDWARDS, M.D., Associate in Surgery, Anatomy, and Diseases of the Rectum and Colon.
FRANCIS ELLIS, A.B., M.D., Associate in Dermatology.
L. K. FARGO, M.D., Associate in Genito-Urinary Surgery.
FRANK H. FIGGE, Ph.D., Associate in Anatomy.
A. H. FINKLESTEIN, M.D., Associate in Pediatrics.
EUGENE L. FLIPPIN, M.D., Associate in Roentgenology.
THOMAS K. GALVIN, M.D., Associate in Gynecology.
WILLIAM G. GEYER, M.D., Associate in Pediatrics.
SAMUEL S. GLICK, M.D., Associate in Pediatrics.
ALBERT E. GOLDSTEIN, M.D., Associate in Pathology.
HENRY F. GRAFF, A.B., M.D., Associate in Ophthalmology.
E. P. H. HARRISON, A.B., M.D., Associate in Obstetrics.
E. H. HAYWARD, M.D., Associate in Surgery.
CYRUS F. HORINE, M.D., Associate in Surgery.
CLEWELL HOWELL, M.D., Associate in Pediatrics.
J. MASON HUNDLEY, JR., M.A., M.D., Associate in Gynecology.
JOSEPH I. KEMLER, M.D., Associate in Ophthalmology.
K. D. LEGGE, M.D., Associate in Genito-Urinary Surgery.
JOHN F. LUTZ, M.D., Associate in Histology.
N. CLYDE MARVEL, M.D., Associate in Surgery.
W. R. MCKENZIE, M.D., Associate in Diseases of the Nose and Throat.
WALTER C. MERKLE, M.D., Associate in Pathology.
L. J. MILLAN, M.D., Associate in Genito-Urinary Surgery.
ZACHARIAH MORGAN, M.D., Associate in Gastro-Enterology.
SAMUEL MORRISON, M.D., Associate in Gastro-Enterology.
M. A. NOVEY, A.B., M.D., Associate in Obstetrics, and Instructor in Pathology.
FRANK N. OGDEN, M.D., Associate in Biological Chemistry.
J. G. M. REESE, M.D., Associate in Obstetrics.
I. O. RIDGLEY, M.D., Associate in Surgery.
H. S. RUBENSTEIN, Ph.D., M.D., Associate in Neuro-Anatomy, and Instructor in Neurology.
ISADORE A. SIEGEL, A.B., M.D., Associate in Obstetrics.
JOSEPH SINDLER, M.D., Associate in Gastro-Enterology.
E. P. SMITH, M.D., Associate in Obstetrics.
GEORGE A. STRAUSS, JR., M.D., Associate in Gynecology.
W. J. TODD, M.D., Associate in Pediatrics.
WILLIAM H. F. WARTHEN, M.D., Associate in Hygiene and Public Health.
R. D. WEST, M.D., Associate in Ophthalmology.
R. G. WILLSE, M.D., Associate in Gynecology.
THOMAS C. WOLFF, M.D., Associate in Medicine.
AUSTIN H. WOOD, M.D., Associate in Genito-Urinary Surgery.

## INSTRUCTORS

BENJAMIN ABESHOUSE, M.D., Instructor in Pathology.
WILLIAM V. ADAIR, D.D.S., Instructor in Clinical Operative Dentistry.
ELIZABETH AITKENHEAD, R.N., Instructor in Surgical Technic, and Supervisor of the Operating Floor.
WALTER A. ANDERSON, D.D.S., M.D., Instructor in Practical Anatomy (Dentistry); Assistant in Pediatrics (Medicine).
BRIDGEWATER M. ARNOLD, A.B., LL.B., Instructor in Law.
JOHN CONRAD BAUER, B.S. in Phar., Ph.D., Instructor in Pharmaceutical Chemistry.
ALVIN H. BERMAN, D.D.S., Instructor in Practical Anatomy.
JOSE BERNARDINI, D.D.S., Instructor in Clinical Pedodontia.
BALTHIS A. BROWNING, D.D.S., Instructor in Clinical Operative Dentistry.
SAMUEL H. BRYANT, A.B., D.D.S., Instructor in Clinical Exodontia.
HENRY F. BUETTNER, M.D., Instructor in Bacteriology.
M. PAUL BYERLY, M.D., Instructor in Pediatrics, and Assistant in Medicine.
EARL L. CHAMBERS, M.D., Instructor in Medicine.
MORRIS E. COBERTH, D.D.S., Instructor in Clinical Operative Dentistry.
BERNARD J. COHEN, M.D., Instructor in Medicine.
MIRIAM CONNELLY, Instructor in Dietetics.
CHARLES C. COWARD, D.D.S., Instructor in Dental Technics.
DAVID C. DANFORTH, D.D.S., Instructor in Clinical Operative Dentistry.
PAUL A. DEEMS, D.D.S., Instructor in Bacteriology and Pathology.
S. DEMARCO, M.D., Instructor in Surgery.
EDWARD C. DOBBS, D.D.S., Instructor in Pharmacology, Materia Medica, and Therapeutics.
MEYER EGGNATZ, D.D.S., Instructor in Clinical Orthodontia and Technics.
WILLIAM ELLSWORTH EVANS, B.S., M.S., Instructor in Pharmacology.
LUTHER W. FETTER, D.D.S., Instructor in Dental Technics.
GARDNER H. FOLEY, M.A., Instructor in English.
WETHERBEE FORT, M.D., Instructor in Medicine.
JOSEPH D. FUSCO, D.D.S., Instructor in Clinical Operative Dentistry.
FRANK J. GERAGHTY, M.D., Instructor in Pathology and Medicine.
WILLIAM R. GERAGHTY, M.D., Instructor in Neurological Surgery, and Assistant in Surgery.
M. G. GICHNER, M.D., Instructor in Medicine.
HAROLD GOLDSTEIN, D.D.S., Diagnostician.
SAMUEL W. GOLDSTEIN, B.S. in Phar., M.S., Instructor in Chemistry.
HAROLD M. GOODMAN, M.D., Instructor in Dermatology and Pathology.
KARL F. GREMPLER, D.D.S., Instructor in Operative Technics.
L. P. GUNDRY, M.D., Instructor in Medicine.
WILLIAM E. HAHN, D.D.S., Instructor in Clinical Exodontia.
MARTIN J. HANNA, M.D., Instructor in Histology.
E. M. HANRAHAN, A.B., M.D., Instructor in Surgery.
GEORGE E. HARDY, JR., A.B., D.D.S., Instructor in Comparative Dental Anatomy.

Samuel T. Helms, M.D., Instructor in Medicine and Genito-Urinary Surgery, and Assistant in Pediatrics.
R. M. Hening, M.D., Instructor in Pediatrics.
Hugh T. Hicks, D.D.S., Instructor in Clinical Periodontia.
John F. Hogan, M.D., Instructor in Genito-Urinary Surgery.
Lillie R. Hoke, R.N., Instructor in Nursing.
F. A. Holden, M.D., Instructor in Ophthalmology and Otology.
Z. Vance Hooper, M.D., Instructor in Gastro-Enterology.
Jaroslav Hulla, M.D., Instructor in Histology.
Frank Hurst, D.D.S., Instructor in Dental Technics.
John M. Hyson, D.D.S., Instructor in Clinical Pathology.
Conrad L. Inman, D.D.S., Instructor in Anesthesia.
Marius P. Johnson, A.B., M.D., Instructor in Physiology.
W. R. Johnson, M.D., Instructor in Surgery and Pathology.
Hammond L. Johnston, D.D.S., Instructor in Clinical Operative Dentistry.
Louis E. Kayne, D.D.S., Instructor in Physiological Chemistry.
Benjamin H. Klotz, M.D., Instructor in Practical Anatomy.
M. Koppleman, M.D., Instructor in Gastro-Enterology.
Marie Kovner, M.D., Instructor in Pediatrics.
J. J. Leyko, M.D., Instructor in Surgery.
Ervin F. Lyon, M.D., Instructor in Pathology.
C. Paul Miller, D.D.S., Instructor in Clinical Prosthetic Dentistry.
A. C. Monninger, M.D., Instructor in Dermatology.
Frank K. Morris, A.B., M.D., Instructor in Anatomy, and Assistant in Surgery and Obstetrics.
Mayo B. Mott, D.D.S., Instructor in Clinical Operative Dentistry.
Ruth Musser, B.A., M.S., Instructor in Pharmacology.
Joseph T. Nelson, D.D.S., Instructor in Clinical Pedodontia.
Ernest B. Nuttall. D.D.S., Instructor in Ceramics.
F. Strattner Orem, M.D., Instructor in Pediatrics.
Thomas R. O'Rourke, M.D., Instructor in Diseases of the Nose and Throat, and Assistant in Ophthalmology.
Frank A. Pacienza, M.D., Instructor in Refraction.
Elizabeth E. Painter, A.B., Instructor in Physiology.
Arthur C. Parsons, A.M., Instructor in Modern Languages.
Grace Pearson, R.N., Instructor in Social Service.
J. A. F. Pfeiffer, M.D., Instructor in Bacteriology.
George J. Phillips, D.D.S., Instructor in Prosthetic Technics.
Melvin A. Pittman, M.S., Instructor in Physics.
Samuel P. Platt, Instructor in Technical Drawing.
Joseph Pokorney, M.D., Instructor in Histology.
Kyrle W. Preis, D.D.S., Instructor in Clinical Orthodontia.
J. Thomas Pyles, A.M., Instructor in English.
James E. Pyott, D.D.S., Instructor in Prosthetic Technics.
William G. Queen, M.D., Instructor in Pediatrics.
Herbert E. Reifschneider, A.B., M.D., Instructor in General Anesthesia.
C. Victor Richards, M.D., Instructor in Gastro-Enterology.
H. Hewell Roseberry, M.A., M.S., Instructor in Physics.

Nathan Scheer, D.D.S., Instructor in Clinical Pedodontia.
William Schuman, M.D., Instructor in Practical Anatomy.
Lawrence Serra, M.D., Instructor in Medicine.
Daniel E. Shehan, D.D.S., Instructor in Clinical Orthodontia.
Henry Sheppard, M.D., Instructor in Medicine.
Elizabeth B. Sherman, A.B., M.D., Instructor in Pediatrics.
Frank J. Slama, B.S. in Phar., M.S., Instructor in Botany.
Frederick Smith, M.D., Instructor in Pediatrics.
Henry C. Smith, M.D., Instructor in Medicine.
Karl J. Steinmueller, A.B., M.D., Instructor in Surgery.
Robert B. Towill, D.D.S., Instructor in Clinical Operative Dentistry.
M. G. Tull, M.D., Instructor in Hygiene and Public Health.
W. W. Walker, M.D., Instructor in Surgery.
Grant E. Ward, A.B., M.D., Instructor in Surgery.
B. Sargent Wells, D.D.S., Instructor in Dental Technics.
John W. Wolf, D.D.S., Instructor in Clinical Periodontia.
L. Edward Wojnarowski, D.D.S., Instructor in Clinical Prosthetic Dentistry.
Helen Wright, R.N., Instructor in Nursing, and Supervisor of Wards.
George H. Yeager, B.S., M.D., Instructor in Surgery.

## ASSISTANTS

Conrad B. Acton, M.D., Assistant in Pathology.
James G. Arnold, Jr., B.S., M.D., Assistant in Pathology.
William B. Baker, B.S. in Phar., M.S., Assistant in Pharmacy.
Estelle Baldwin, R.N., Assistant in Pediatric Nursing.
Cecil R. Ball, A.M., Assistant in English.
Margaret B. Ballard, M.D., Assistant in Obstetrics.
Nathaniel Beck, M.D., Assistant in Medicine.
J. G. Benesunes, M.D., Assistant in Orthopaedic Surgery.
Carl Benson, M.D., Assistant in Medicine.
Dudley P. Bowie, M.D., Assistant in Obstetrics.
Kenneth B. Boyd, M.D., Assistant in Obstetrics.
J. E. Bradley, M.D., Assistant in Pediatrics.
Simon H. Brager, M.D., Assistant in Surgery.
Bernice Brittain, R.N., Assistant Superintendent of Nurses.
A. V. Buchness, M.D., Assistant in Surgery.
J. Howard Burns, M.D., Assistant in Medicine and Pediatrics.
George H. Carr, Jr., M.D., Assistant in Medicine.
Rachel L. Carson, M.A., Assistant in Zoology.
Eli Contract, M.D., Assistant in Gastro-Enterology.
Marie Olga Cox, R.N., Night Supervisor.
Samuel H. Culver, M.D., Assistant in Surgery.
Gustav Edward Cwalina, B.S. in Phar., M.S., Assistant in Pharmaceutical Chemistry.
E. Hollister Davis, A.B., M.D., Assistant in Anesthesia.
Amelia C. DeDominicis, B.S. in Phar., M.S., Assistant in Botany.

Grace Dick, R.N. Assistant in Medical Nursing.

Melvin F. W. Dunker, B.S. in Phar., Assistant in Chemistry.

E. S. Edlavitch, M.D., Assistant in Gynecology and Obstetrics.

Freda Fazenbaker, R.N., Assistant in Surgical Nursing.

J. G. Feman, M.D., Assistant in Medicine.

Morris Fine, M.D., Assistant in Medicine and Pediatrics.

Ruth Foster, M.D., Assistant in Neurology.

H. D. Franklin, M.D., Assistant in Pediatrics.

W. G. Friedrich, Ph.D., Assistant in Modern Languages.

Arthur M. Gibson, B.S., Assistant in Chemistry.

Julius Goodman, M.D., Assistant in Surgery.

J. Willis Guyton, M.D., Assistant in Surgery.

J. Frank Hewitt, M.D., Assistant in Surgery.

Bertha Hoffman, R.N., Assistant in Nursing, Supervisor of Medical and Surgical Supplies.

William H. Hunt, B.S. in Phar., M.S., Assistant in Bacteriology.

Casimer T. Ichniowski, B.S. in Phar., M.S., Assistant in Pharmacology.

Robert W. Johnson, M.D., Assistant in Pathology and Surgery.

Clyde F. Karns, M.D., Assistant in Surgery.

Walter Kohn, M.D., Assistant in Gastro-Enterology.

Beatrice Krause, R.N., Assistant in Obstetrical Nursing.

H. Edmund Levin, B.S., M.D., Assistant in Bacteriology and Medicine.

Luther E. Little, M.D., Assistant in Surgery and Anatomy.

L. Lavan Manchey, B.S. in Phar., M.S., Assistant in Chemistry.

G. Bowers Mansdorfer, M.D., Assistant in Pediatrics.

I. H. Maseritz, M.D., Assistant in Orthopaedic Surgery.

H. B. McElwain, M.D., Assistant in Surgery.

William N. McFaul, Jr., M.D., Assistant in Surgery.

Birckhead McGowan, M.D., Assistant in Diseases of the Nose and Throat, and Otology.

Israel P. Meranski, M.D., Assistant in Pediatrics.

R. B. Mitchell, Jr., B.S., M.D., Assistant in Medicine.

Dwight Mohr, M.D., Assistant in Surgery.

Egbert L. Mortimer, Jr., M.D., Assistant in Orthopaedic Surgery.

J. W. Nelson, M.D., Assistant in Surgery.

J. F. O'Brien, B.S., Assistant in Zoology.

J. G. Onnen, M.D., Assistant in Surgery.

James C. Owings, M.D., Assistant in Surgery.

C. W. Peake, M.D., Assistant in Surgery.

H. William Primakoff, M.D., Assistant in Gastro-Enterology.

William Arthur Purdum, B.S. in Phar., M.S., Assistant in Pharmacy.

E. M. Reese, M.D., Assistant in Medicine.

Robb V. Rice, B.S. in Phar., M.S., H.A.B. Dunning Research Fellow, Assistant in Pharmacy.

Benjamin S. Rich, M.D., Assistant in Otology.

Bertran S. Roberts, B.S. in Phar., M.S., Assistant in Pharmacology.

John G. Runkle, M.D., Assistant in Ophthalmology.

Harry A. Rutledge, M.D., Assistant in Pediatrics.

A. Scagnetti, M.D., Assistant in Medicine.

Paul Schenker, M.D., Assistant in Surgery.

Dorothy E. Schmalzer, B.S. in Phar., Assistant in Biological Chemistry.

Wm. J. Schmitz, M.D., Assistant in Pediatrics.

Emanuel V. Shulman, B.S. in Phar., M.S., Assistant in Botany.

Aaron C. Sollod, M.D., Assistant in Gastro-Enterology.

Ralph Stevenson, M.D., Assistant in Pathology.

David Tenner, M.D., Assistant in Medicine.

T. J. Toughey, M.D., Assistant in Surgery.

I. R. Trimble, M.D., Assistant in Surgery.

Samuel A. Vest, M.D., Assistant in Pathology.

S. Kendig Wallace, M.D., Assistant in Pediatrics.

Albert R. Wilkerson, M.D., Assistant in Surgery.

George L. Wissig, M.D., Assistant in Obstetrics.

Thomas Gorsuch Wright, B.S. in Phar., M.S., Assistant in Pharmacy.

Max Morton Zervitz, B.S. in Phar., M.S., Assistant in Chemistry.

## FACULTY COMMITTEES

### At Baltimore

### LIBRARY

(Medicine) Doctors Lockard, Wylie, and Love, Jr.; (Dentistry) Doctors Gaver, Aisenberg, and Hardy; (Pharmacy) Dean DuMez, Messrs. Jenkins, M. R. Thompson, and Slama; (Law) Messrs. Casner and Strahorn.

The Faculty Councils of the Baltimore Schools are included in the descriptive statements of the respective schools in Section II.

The Faculty Committees of the Baltimore schools are given in the separate announcements issued by the several schools.

# SECTION I

# General Information

## HISTORICAL STATEMENT

The history of the present University of Maryland, before the merger in 1920, is the history of two institutions: the old University of Maryland in Baltimore and the Maryland State College (formerly Maryland Agricultural College) in College Park.

The beginning of this history was in 1807, when a charter was granted to the College of Medicine of Maryland. The first class was graduated in 1810. A permanent home was established in 1814-1815 by the erection of the building at Lombard and Greene Streets in Baltimore, the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries (and the first medical school library) in the United States. In 1812 the General Assembly of Maryland authorized the College of Medicine of Maryland to "annex or constitute faculties of divinity, law, and arts and sciences," and by the same act declared that the "colleges or faculties thus united should be constituted an university by the name and under the title of the University of Maryland." By authority of this act, steps were taken in 1813 to establish "a faculty of law," and in 1823 a regular school of instruction in law was opened. Subsequently there were added a college of dentistry, a school of pharmacy, and a school of nursing. No significant change in the organization of the University occurred until 1920, more than one hundred years after the original establishment in 1812.

The Maryland State College was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This grant was accepted by the General Assembly of Maryland, and the Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least in part, a State institution. In the fall of 1914 control was taken over entirely by the State. In 1916 the General Assembly granted a new charter to the College, and made it the Maryland State College.

In 1920, by an act of the State Legislature, the University of Maryland was merged with the Maryland State College, and the name of the latter was changed to the University of Maryland.

All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, and the name was changed to the Board of Regents of the University of Maryland. Under this charter every power is granted necessary to carry on an institution of higher learning and research. It provides that the University shall receive and administer all existing grants from the Federal Government for education and research and all future grants which may come to the State from this source. The University is co-educational in all its branches.

## ADMINISTRATIVE ORGANIZATION

The government of the University is vested by law in a Board of Regents, consisting of nine members appointed by the Governor each for a term of nine years. The administration of the University is vested in the President. The University Senate and the Administrative Council act in an advisory capacity to the President. The composition of these bodies is given elsewhere.

The University organization comprises the following administrative divisions:

College of Agriculture.
Agricultural Experiment Station.
Extension Service.
College of Arts and Sciences.
College of Education.
College of Engineering.
College of Home Economics.
Graduate School.
Summer Session.
Department of Military Science and Tactics.
Department of Physical Education and Recreation.
School of Dentistry.
School of Law.
School of Medicine.
School of Nursing.
School of Pharmacy.
The University Hospital.

The University faculty consists of the President, the Deans, the instructional staffs of all the divisions of the University, and the Librarians. The faculty of each college or school constitutes a group which passes on all questions that have exclusive relationship to the division represented. The President is ex-officio a member of each of the faculties.

The organization and activities of the several administrative divisions are described in full in the appropriate chapters of Section II.

## PRINCESS ANNE ACADEMY

Princess Anne Academy, located at Princess Anne, Somerset County, is maintained for the education of Negroes in agriculture, the mechanic arts, and home economics.

## LOCATION

The University of Maryland is located at College Park, in Prince George's County, Maryland, on the Baltimore and Ohio Railroad, eight miles from Washington and thirty-two miles from Baltimore. The campus fronts on the Baltimore-Washington Boulevard.

The Professional Schools of the University and the University Hospital are located in the vicinity of Lombard and Greene Streets, Baltimore.

### GROUNDS AND BUILDINGS

#### College Park

**Grounds.** The University grounds at College Park comprise 286 acres. The site is healthful and attractive. The terrain is varied. A broad rolling campus is surmounted by a commanding hill which overlooks a wide area of surrounding country and insures excellent drainage. Many of the original forest trees remain. Most of the buildings are located on this eminence. The adjacent grounds are laid out attractively in lawns and terraces ornamented with shrubbery and flower beds. Below the brow of the hill, on either side of the Washington-Baltimore Boulevard, lie the drill grounds and the athletic fields. The buildings of the Agricultural Experiment Station adjoin the boulevard. About 100 acres are used by the College of Agriculture for experimental purposes, and for orchards, vineyards, poultry yards, etc. Recently 270 acres additional have been purchased, about two miles north of the University campus, and this land is devoted especially to research in horticulture.

The water supply and sewage disposal are provided by the Washington Suburban Sanitary Commission.

**Buildings.** The buildings comprise about twenty-six individual structures, which provide facilities for the several activities and services carried on at College Park.

*Administration and Instruction.* This group consists of the following buildings: the Agriculture Building, which accommodates the College of Agriculture, the College of Education, the Agricultural and Home Economics Extension Service, and the Auditorium; the Library Building, which houses the Library and the Executive Offices; Morrill Hall, which accommodates in part the College of Arts and Sciences; the Old Library Building, in which are the offices of the Dean of Women and the English and History Departments; the Engineering Building; the Student Center, in which are located the offices of the student publications, the Religious Work Council, and the Maryland Christian Association; the Home Economics Building; the Chemistry Building for instruction in Chemistry and for State work in analysis of feeds, fertilizers, and agricultural lime; the Dairy Building; the Horticulture Building, which adequately accommodates all class room and laboratory work in horticulture, and also work in horticultural research for both Government and State; the Plant Research Building; the poultry buildings; the Central Heating Plant. A new building for the College of Arts and Sciences is now under construction, to be named in honor of the late Chairman of the Board of Regents, the Honorable Samuel M. Shoemaker.

*Experiment Station.* The offices of the Director of the Experiment Station are in the Agriculture Building, while other buildings house the laboratories for research in soils and for seed testing. Other structures are as follows: an agronomy building; a secondary horticulture building; and barns, farm machinery building, silos, and other structures required in agricultural research. Some of the research is being conducted in the Rossbourg Inn.

*Physical Education.* This group consists of The Ritchie Coliseum, which provides quarters for all teams, an athletic office, trophy room, rooms for faculty, and visiting team rooms, together with a playing floor and permanent seating arrangements for 4,262 persons; Byrd Stadium, with a permanent seating capacity of 8,000, also furnished with rest rooms for patrons, dressing rooms, and equipment for receiving and transmitting information concerning contests in progress; a Gymnasium, used in part by the Military Department and generally for physical education work; and the Girls' Field House, for all girls' sports. Playing and practice fields and tennis courts are adjacent to the field houses.

*Dormitories.* Two dormitories, Calvert Hall and Silvester Hall, provide accommodations for 462 men students. Accommodations for 119 women students are provided by the new Margaret Brent Hall. Gerneaux Hall, formerly used as a dormitory for women students, is now occupied by one of the sororities. The Practice House, which for several years was used as a dormitory, has been turned over entirely to the Home Economics Department. A new women's dormitory is now under construction. It will accommodate approximately 118 women.

*Service Structures.* This group includes the Central Heating Plant; the Infirmary, with accommodations for twenty patients, physician's office, operating room, and nursing quarters; Dining Hall, and Laundry.

### Baltimore

The group of buildings located in the vicinity of Lombard and Greene Streets provides the available housing for the Baltimore division of the University. The group comprises the original Medical School building, erected in 1814, the University Hospital, the Central Office building, a new Laboratory building for the Schools of Dentistry and Pharmacy, and a new Law School building. Full descriptions of these parts of the University equipment are found in the chapters devoted to the Baltimore Schools in Section II.

A new University Hospital, at the corner of Greene and Redwood Streets, containing 400 beds and providing fine clinical facilities, was completed in November, 1934.

### Libraries

Libraries are maintained at both the College Park and the Baltimore branches of the University.

The Library Building at College Park houses the executive offices, post-office, and students' supply store. The building is well equipped and well lighted. The reading room on the second floor has seats for 236, and about 4,500 reference books and periodicals on open shelves, the other books being kept in the stack room and three seminar rooms. The stack room is equipped with five tiers of metal stacks and 18 cubicles for advanced study. About 5,500 of the 52,500 books on the campus are shelved in the Engineering, Chemistry, and Entomology Departments, the Graduate School, and other units.

The Library facilities in Baltimore for the School of Medicine are housed in Davidge Hall; those for the Schools of Dentistry and Pharmacy and the courses in Arts and Sciences are located in the Dentistry and Pharmacy Building; and those for the School of Law are in the new Law Building.

The libraries, main and departmental, contain a total of 87,107 bound volumes, and large collections of unbound journals. In the two central libraries there are approximately 12,000 United States Government documents, unbound reports, and pamphlets.

Through the Inter-library Loan Systems of the Library of Congress, the United States Department of Agriculture, and other Government Libraries in Washington, the University Library is able to supplement its reference material, either by arranging for personal work in these Libraries or by borrowing books from them.

## ENTRANCE

All communications regarding entrance should be addressed to the Registrar, who administers the entrance requirements for all departments of the University. Communications pertaining to entrance to the College Park Colleges should be addressed to the Registrar, University of Maryland, College Park, Maryland; those pertaining to the Baltimore Schools, to the

Registrar, University of Maryland, Lombard and Greene Streets, Baltimore, Maryland.

**Age of Applicants.** A student who is less than sixteen years of age must have his residence with parents or guardians.

**Entrance Preliminaries.** Candidates for admission should apply as early as possible to the Registrar for the necessary forms for the transfer of preparatory credits. After these forms have been filled out by the applicant and the high school principal, they should be returned to the Registrar. It is advisable for prospective students to attend to this matter as early as possible after graduation from high school, in order to make sure that the units offered are sufficient and acceptable. The Registrar is always glad to advise with students, either by correspondence or in person, concerning their preparation. The Registrar sends out a general statement of the procedure for new students to follow after they are duly admitted to the University.

**Time of Admission.** Applicants for admission should plan to enter at the beginning of the school year in September. It is possible, however, to be admitted to certain colleges at the beginning of either semester.

**Registration.** Registration for the first semester, except for new students, takes place at the end of the second semester of the preceding year. Students register for the second semester during the week preceding final examinations of the first semester.

**Late Registration.** Students who do not complete their registration and classification on regular registration days will be required to pay $3.00 extra on the day following the last registration day and $2.00 for each additional day thereafter until their registration is completed. The maximum fine is $9.00. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

After seven days from the opening of a semester, a fee is imposed for a change of registration.

Students who, for any reason, are more than ten days late in registering must secure permission from the instructors in charge for admission to courses. Such permission must be given in writing to the student's dean before course cards will be issued.

**Freshman Registration.** Registration of freshmen for the first semester will take place Monday of the opening week. All freshmen are expected to register at this time.

Dormitories will be ready for occupancy by freshmen Sunday of the opening week.

A special freshman program is planned covering the time between registration day and the beginning of the instruction schedule, the object of which is to complete the organization of freshmen so that they may begin the regular work promptly and effectively, and to familiarize them with their new surroundings.

## ADMISSION FROM SECONDARY SCHOOLS. REQUIREMENTS AND METHODS.

An applicant from a secondary school may be admitted either by certificate or by examination.

**Admission by Certificate:** For admission by certificate an applicant must be a graduate of a secondary school which is approved either by the Maryland State Board of Education or by an accrediting agency of equal rank. Such applicant must have completed at least fifteen units of preparatory work. A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Two laboratory periods in any science or vocational study are considered as equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be allowed.

An applicant for admission by certificate from a preparatory school not located in Maryland or the District of Columbia must be recommended by his high school principal, and must attain the college recommendation grade of his school, or, if his school has no college recommendation grade, an average in his high school work at least ten per cent. higher than the lowest passing grade.

The additional and special requirements for admission to the various undergraduate curricula, the professional schools, and the Graduate School are given in detail in the "Tabular Summary of Subject Matter Requirements for Entrance," or in chapters devoted to these schools.

**Admission by Examination:** An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination. (1) He may appeal to the Committee on Entrance for permission to report at the University for college aptitude tests, which will be used in addition to the preparatory school record in determining whether the applicant shall be admitted to the University. (2) He will be admitted upon presenting evidence of having passed, satisfactorily, examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered in various parts of the country by the College Entrance Examination Board, with headquarters at 431 West 117th St., New York City. Examinations are offered also by Regents of the University of the State of New York and by the Department of Public Instruction of the State of Pennsylvania. College Entrance Board examinations must be passed with a grade of 60. New York Regents and Pennsylvania examinations must be passed with a grade of 75.

## Tabular Summary of Subject Matter Requirements for Entrance

The University offers forty-five undergraduate curricula as follows:

Agricultural Chemistry—A
Agricultural Economics—A
Animal Husbandry—A
Arts—Nursing—A
Arts—Law—A
Arts and Science Education—A
Bacteriology and Pathology—A
Biological Science—A
Botany—A
Business Administration—A
Civil Engineering—C
Crops—A
Commercial Education—E
Dairy Manufacturing—A
Dairy Production—A
Economics and Sociology—A
Electrical Engineering—C
English—A
Entomology—A
Floriculture—A
Foods—B
General Agriculture—A
General Chemistry—A
General Home Economics—B
History and Political Science—A
Home Economics Education—B
Industrial Chemistry—C
Industrial Education—A
Institutional Management—B
Landscape Gardening—A
Mathematics—C
Mechanical Engineering—C
Modern Language—A
Olericulture—A
Pomology—A
Physical Education—A
Physical Science—A
Physics—C
Poultry Husbandry—A
Pre-Dentistry—A
Pre-Medicine—D
Rural Education—A
Soils—A
Textiles and Clothing—B
Zoology—A

Letters following curricula refer to entrance requirement captions presented in the following table.

The requirements for admission to the foregoing curricula are indicated in the following table, the requirements for a specific curriculum being given in that column headed by the letter which follows the name of the curriculum in the foregoing list.

| | A | B | C | D | E |
|---|---|---|---|---|---|
| English | 3 | 3 | 3 | 3 | 3 |
| Algebra | 1 | | **2 | 1 | 1 |
| Plane Geometry | *1 | | 1 | 1 | |
| Solid Geometry | | | **½ | | |
| Mathematics | | 2 | | | |
| History | 1 | 1 | 1 | 1 | 1 |
| Science | 1 | 1 | 1 | 1 | 1 |
| Foreign Language | | | | 2 | |
| Stenography | | | | | 2 |
| Typewriting | | | | | 1 |
| Bookkeeping | | | | | 1 |
| Electives | 8 | 8 | 6½ | 6 | 5 |

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*In the College of Agriculture, with the exception of those curricula which include trigonometry, a second unit of any mathematics may be substituted for the requirement in plane geometry, provided the applicant ranks in the upper two-thirds of his high school class.

**Students who do not offer entrance units in algebra, completed, and in solid geometry, may enter the Engineering College, but will be obliged, during the first semester, to take courses which will make up the unit in algebra, completed, and one-half unit in solid geometry, and then they may enter upon the regular freshman mathematics at the beginning of the second semester. The work of the second semester freshman mathematics will be offered these students in the summer session.

**Conditions:** A student who is eligible to enter the University, but who cannot meet specific requirements for admission to the curriculum of his choice, may enter without regular classification and transfer to the specific curriculum as soon as his deficiencies shall have been removed.

## ADMISSION BY TRANSFER FROM OTHER COLLEGES OR UNIVERSITIES

A candidate for admission by transfer from another college or university must present evidence that he has maintained a satisfactory and honorable record at the institution which he has attended.

For admission by transfer the applicant should file with the registrar, as soon as possible after the close of the school year in June, an application for admission made out on the blank form furnished by the University. In addition, he should have the institution he has attended furnish the registrar with a complete official transcript of his record, including the secondary school record and a statement of honorable dismissal.

### Advanced Standing

Advanced standing is granted to students transferring from institutions of collegiate rank for work completed which is equivalent in extent and quality to the work of the University of Maryland, subject to the following provisions:

(1) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree with less than one year of resident work.

(2) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree until he shall have satisfied the full requirements of the curriculum he may elect.

(3) In case the character of a student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any credit allowed.

(4) Credit will not be allowed for more than one-fourth of those courses in which the grade is the lowest passing grade of the college attended.

(5) An applicant may request examination for advanced credit in any subject in keeping with requirements prescribed by the University.

## UNCLASSIFIED STUDENTS

Students at least twenty-one years of age who have had insufficient preparation to be admitted to any of the four-year curricula may register, with the consent of the Committee on Entrance, for such subjects as they appear fitted to take. So long, however, as a student remains unclassified, he is ineligible to matriculate for a degree. One may attain regular classification at any time by satisfying the entrance requirements.

## REQUIREMENT IN MILITARY INSTRUCTION

All male students, if citizens of the United States, whose bodily condition indicates that they are physically fit to perform military duty are required to take military training for a period of two years, as a prerequisite to graduation.

### Graduation Requirements for Students Excused from Military Instruction and Physical Education

Students excused from basic military training or physical education without academic credit shall be required to take an equivalent number of credits in other subjects, so that the total credits required for a degree in any college shall not be less than 127 hours. The substitution must be approved by the Dean of the College concerned.

## HEALTH SERVICE

### PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the general health, all students who enter the undergraduate colleges at College Park are given a physical examination. The examination of the men students is conducted by the University Physician in cooperation with the Physical Education and Military Departments. That of the women students is conducted by a woman physician especially employed for this purpose in cooperation with the Dean of Women.

### INFIRMARY RULES

1. All undergraduate students may receive dispensary service and medical advice by reporting at the Infirmary during regular office hours established by the physician in charge.

Office hours every day at 8 to 9 o'clock in the morning except on Sundays. Evening office hours every day at 6 to 6:30 except Saturday and Sunday. Office hours on Sunday by appointment only.

2. A registered nurse is on duty at all hours at the Infirmary.

Between the hours of 2 and 4 in the afternoon, quiet hour is observed. During this time students are requested not to report except in case of an emergency.

3. Students not living in their own homes who need medical attention and who are unable to report to the Infirmary should call one of the University physicians. Such visits will be free of charge except in cases where additional visits are necessary. For such additional visits as may be necessary, the University physician will make his usual charge. But, if a student so desires, he may call a physician of his own choice and at his own expense.

4. Students not residing in their own homes may, upon the order of the University physician, be cared for in the Infirmary to the extent of the facilities available. Students who live off the campus will be charged a fee of two dollars a day.

5. The visiting hours are 4 to 5 and 7 to 8 p. m. daily. No visitor may see any patient until permission is granted by the nurse in charge.

6. Hospitalization is not available at the Infirmary for graduate students and employees. Dispensary service, however, is available for graduate students and employees who are injured in University service or University activities.

7. For employees of the University who handle food and milk, the University reserves the right to have its physician make physical examinations, and such inspections of sanitary conditions in homes as in the opinion of the University physician, may be desirable.

8. Students living in the dormitories who are unable to attend classes because of illness or who are unable to report to the Infirmary should report to their dormitory matrons, who will notify the Infirmary immediately.

9. Students who are ill in their homes, fraternity houses, or dormitories and wish a medical excuse for classes missed during the time of illness must present written excuses from their physicians, parents, or house mothers. These excuses will be approved by the University physicians or nurse.

## REGULATIONS, GRADES, DEGREES

### REGULATION OF STUDIES

**Course Numbers.** Courses for undergraduates are designated by numbers 1—99; courses for advanced undergraduates and graduates, by numbers 100—199; and courses for graduates, by numbers 200—299.

The letter following the number of a course indicates the semester in which it is offered; thus, course 1f is offered in the first semester; 1s, in the second semester. The letter "y" indicates a full-year course. The number of hours' credit for each course is indicated by the arabic numeral in parentheses following the title of the course. No credit is allowed for a "y" course until it is completed.

**Schedule of Courses.** A semester time schedule of courses, giving days, hours, and rooms, is issued as a separate pamphlet at the beginning of each semester. Classes are scheduled beginning 8:20 A. M.

**Definition of Credit Unit.** The semester hour, which is the unit of credit in the University, is the equivalent of a subject pursued one period a week for one semester. Two or three periods of laboratory or field work are equivalent to one lecture or recitation period. The student is expected to devote three hours a week in classroom or laboratory or in outside preparation for each credit hour in any course.

**Number of Hours.** The normal student load is from 15 to 19 semester hours, according to curriculum and year. These variations are shown in the appropriate chapters in Section II describing the several divisions of the University. No student may carry either more or less than the prescribed number of hours without specific permission from the Dean of his College.

### EXAMINATIONS AND GRADES

**Examinations.** Examinations are held at the end of each semester in accordance with the official schedule of examinations. Students are required to use the prescribed type of examination book in final examinations; and in tests, when requested to do so by the instructor.

Final examinations are held in all courses except in classes where the character of the work will permit the instructor to note frequently the progress and proficiency of the student—in which case they may be omitted upon approval of the head of the department and dean of the college. Periodic examinations and tests are given during regularly scheduled class periods. Final examinations, where required, are given according to schedule and are of not more than three hours' duration.

**Grading.** The system of grading is uniform in the different departments and divisions of the University.

The following grade symbols are used: A, B, C, D, E, F, and I. The first four, A, B, C, and D, are passing; E, condition; F, failure; I, incomplete.

Grade A denotes superior scholarship; grade B, good scholarship; grade C, fair scholarship; and grade D, passing scholarship.

A student who receives the grade D in more than one-fourth of the credits required for graduation must take additional courses or repeat courses until he has the required number of credits for a degree, three-fourths of which carry a grade above D. A student is not permitted to repeat a course to raise a D grade after a lapse of two years.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

A student with the grade of E is conditioned in the course. The grade of E will be changed by a reexamination during the succeeding semester to D or F. The grade cannot be raised to a grade higher than D. Only one reexamination is permitted, and if a student does not remove the condition at the time scheduled for this reexamination the condition becomes a failure. No student is permitted to take a reexamination to remove a condition within four weeks after the condition has been acquired.

The mark I (Incomplete) is exceptional, and is given only to a student whose work has been qualitatively satisfactory and who has a proper excuse for not having completed the requirements of the course. In case of a student whose work has been unsatisfactory and who is absent from the final examination, the grade will be E or F, in accordance with the character of the previous work. In cases where the mark I is given the student must complete the work assigned by the instructor by the end of the first semester in which that subject is again offered, or the grade becomes F.

Work of grade D, or of any passing grade, cannot be raised to a higher grade except by repeating the course. A student who repeats a course for which he has received credit for work done at this University or elsewhere, must meet all the requirements of the course, including regular attendance, laboratory work, and examinations. His final grade will be substituted for the grade already recorded, but he will not receive any additional credit for the course.

Students in the College of Engineering who have grades of D in the second semester of either sophomore physics or mathematics cannot register in junior engineering subjects until those grades are raised to C or better.

## REPORTS

To qualify for junior standing in the College of Education, an average of at least C is required.

Written reports of grades are sent by the Registrar to parents or guardians at the close of each semester.

## ELIMINATION OF DELINQUENT STUDENTS

The University reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the University would be detrimental to his or her health, or to the health of others, or whose conduct is not satisfactory to the authorities of the University. *Students of the last class may be asked to withdraw even though no specific charge be made against them.*

## DEGREES AND CERTIFICATES

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery, and Bachelor of Science in Pharmacy.

Students in the two-year and three-year curricula are awarded certificates.

The requirements for graduation vary according to the character of work in the different colleges and schools. For full information regarding the requirements for graduation in the several colleges consult the appropriate chapters in Section II.

No baccalaureate degree will be awarded to a student who has had less than one year of resident work in this University. The last thirty credits of any curriculum leading to a baccalaureate degree must be taken in residence at the University of Maryland.

At least three-fourths of the credits required for graduation must be earned with grades of A, B, and C.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

Each candidate for a degree must file in the Office of the Registrar before March 1st of the year in which he expects to graduate, a formal application for a degree.

## EXPENSES

Make all checks payable to the University of Maryland for the exact amount of the semester charges.

In order that the cost of operation may be reduced, all fees are due and payable as a part of the student's registration, and all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.

## EXPENSES AT COLLEGE PARK

The University reserves the right to make such changes in fees and other costs as any occasion may make necessary. Such changes, however, in comparison with the total cost to the student would be only nominal.

## FEES FOR UNDERGRADUATE STUDENTS

### Maryland

| | *First Semester* | *Second Semester* | *Total* |
|---|---|---|---|
| Fixed Charges | $62.50 | $62.50 | $125.00 |
| Athletic Fee | 15.00 | ........... | 15.00 |
| *Special Fee | 10.00 | ........... | 10.00 |
| **Student Activities Fee | 10.00 | ........... | 10.00 |
| | $97.50 | $62.50 | $160.00 |

### District of Columbia

| | *First Semester* | *Second Semester* | *Total* |
|---|---|---|---|
| General Fees listed above | $ 97.50 | $62.50 | $160.00 |
| Non-Resident Fee | 25.00 | 25.00 | 50.00 |
| | $122.50 | $87.50 | $210.00 |

### Other States and Countries

| | *First Semester* | *Second Semester* | *Total* |
|---|---|---|---|
| General Fee | $ 97.50 | $ 62.50 | $160.00 |
| Non-Resident Fee | 62.50 | 62.50 | 125.00 |
| | $160.00 | $125.00 | $285.00 |

### Special Fees

| | |
|---|---|
| Matriculation Fee, payable on first entrance | $ 5.00 |
| Diploma Fee for bachelor's degree | 10.00 |
| Certificate Fee for Teacher's Diploma and other certificates where required each | 5.00 |

Pre-Medical and Pre-Dental Fee—Per semester in addition to fees shown above:

| | |
|---|---|
| Maryland | $25.00 |
| District of Columbia | 25.00 |
| Other States and Countries | 62.50 |

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* This fee, established by special request of the Student Government Association for a period of eight years, beginning Sept. 1, 1930, was for the purpose of further improving the University grounds and the physical training facilities. The income now being derived from it is used to amortize bonds issued by the Athletic Board for the purpose of constructing Ritchie Coliseum.

** The Student Activities Fee is included at the request of the Student Government Association. Its payment is not mandatory, but it is really a matter of economy to the student, since it covers subscription to the student weekly paper, the literary magazine, and the year book; class dues, including admission to class dances; and admission to the performances of the musical and dramatic clubs.

### Expenses of Students Living in Dormitories

| | *First Semester* | *Second Semester* | *Total* |
|---|---|---|---|
| Board | $135.00 | $135.00 | $270.00 |
| Lodging | 38.00 | 38.00 | 76.00 |
| | $173.00 | $173.00 | $346.00 |

### Laboratory Fees Per Semester Course

| | |
|---|---|
| Bacteriology | |
| General or Household | $4.00 |
| All other courses | $5.00 |
| Botany | $2.00 |
| Agricultural or Industrial Chemistry | $5.00 |
| Analytical or Organic Chemistry | $6.00 |
| Inorganic or Physical Chemistry | $4.00 |
| Home Economics: Foods | $3.00 |
| Zoology | $2.00 |

### Miscellaneous Fees

| | |
|---|---|
| Late Registration Fee | $3.00-$9.00 |
| Fee for each change in registration after first week | $1.00 |
| Fee for failure to file schedule card in Registrar's Office during first week of semester | $1.00 |
| Absence Fee twenty-four hours before or after holiday | $3.00 |
| Condition Examination Fee | $1.00 |
| Special Examination Fee | $5.00 |
| Fee for failure to report for medical examination appointment | $2.00 |
| Part-time students carrying six semester hours or less—per semester credit hour | $6.00 |
| Laundry service, when desired—per semester | $13.50 |

Students will be charged for wilful damage to property. Where responsibility for the damage can be fixed, the individual student will be billed for it; where it cannot, the entire student body will be charged a flat fee to cover the loss or damage.

### Fees For Graduate Students

| | |
|---|---|
| Matriculation Fee | $10.00 |
| Fee for each semester credit hour | 4.00 |
| Diploma Fee—Master's Degree | 10.00 |
| Graduation Fee—Doctor's Degree | 20.00 |

## EXPLANATIONS

**The Fixed Charges** made to all students cover a part of the overhead expenses not provided for by the State.

**The Board, Lodging, and Laundry charge** may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

**Fees for Students Entering in February.** Students entering the University for the second semester are charged the following fees for the items indicated: Athletic, $7.50; Special, $5.00, and Student Activities, $8.00.

**Fees for Part-Time Students.** Undergraduate students carrying six semester hours or less of regularly scheduled courses are charged $6.00 per semester credit and regular laboratory fees. Students carrying seven or more semester hours are charged the regular fees. In the case of special courses with special fees this rule does not apply. A matriculation fee of $5.00 is charged at the first registration.

**The Athletic Fee** constitutes a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Director for disbursement. This fund is audited annually by the State Auditors.

**Late Registration Fee.** Students who do not complete their registration and classification on regular registration days will be required to pay $3.00 extra on the day following the last registration day, and $2.00 for each additional day thereafter until their registration is completed. The maximum fee is $9.00. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

**Absence Fee.** In cases of absence during a period beginning 24 hours before the close of classes for a vacation or holiday and ending 24 hours after the resumption of classes, a student will be penalized by being required to pay a special fee of $3.00 for each class missed. Unless properly excused, students will be penalized, as in the case of a holiday, for absence from the first meeting of each class at the beginning of the second semester.

Students desiring to be excused from classes before and after a holiday must make application to the Dean at least one week before such holiday. Except under the conditions specified, no excuse for an absence before or after a holiday will be granted.

In exceptional cases, such as sickness or death in the family, application for an excuse must be made within one week after a student returns.

## DEFINITION OF RESIDENCE AND NON-RESIDENCE

Students who are minors are considered to be resident students, if at the time of their registration their parents* have been residents of this State† for at least one year.

Adult students are considered to be resident students, if at the time of their registration they have been residents of this State† for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this State†, by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

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* The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of and stand in loco parentis to such minor students.

† Students in the College Park Colleges who are residents of the District of Columbia are charged two-fifths of the non-resident fee charged to other non-residents.

## MISCELLANEOUS INFORMATION

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Students not rooming in the dormitories may obtain board and laundry at the University at the same rates as those living in the dormitories.

Day students may get lunches at the University cafeteria or at nearby lunch rooms.

The costs of books and supplies and personal needs will vary according to the tastes and habits of the individual student. Books and supplies average about $40.00 per year.

No diploma will be conferred upon, nor any certificate granted to a student who has not made satisfactory settlement of his account.

## DORMITORY RULES AND REGULATIONS

The office of the Dormitory Manager is located in Room 121, Silvester Hall. Each dormitory student, after registering, will proceed immediately to the Dormitory Manager's office to receive his room key and take possession of his room. Instructions regarding the rules for the dormitories will be given to the student at this time. A matron is on duty in each dormitory and will give any information desired.

All freshmen students, except those who live at home, are required to room in the dormitories and board at the University dining hall.

All dormitory property assigned to the individual student will be charged against him, and the parent or guardian must assume responsibility for its possession without destruction other than that which may result from ordinary wear and tear.

Each student assigned to a dormitory is required to provide himself with sufficient single blankets, at least two pairs of single sheets, three pillow cases, six towels, a pillow, a laundry bag, a broom, and a waste basket.

**Room Reservations.** Each student who is to room in a dormitory must register his name and selection of rooms with the Dormitory Manager, and deposit $5.00 with the Cashier as a reserve fee. This fee will be deducted from the first semester charges when the student registers; if he fails to register, the fee will be forfeited. Reservations may be made at any time during the closing month of the school year by students already in the University. A student who is applying for admission to the University should signify his desire to reserve a room, and accompany this request with a remittance of $5.00.

**Keys.** A student who withdraws from a dormitory at any time and fails to surrender his key to the Dormitory Manager immediately will be subject to a charge of $1.00.

### WITHDRAWALS

Students registering for the dormitories and dining hall must continue for the year, as contracts for faculty and other service and for supplies are made on an annual basis, and fees are fixed on the supposition that students will remain for the entire year.

A student desiring to withdraw from the University must secure the written consent of the parent or guardian, to be attached to the withdrawal slip, which must be approved by the Dean and presented to the Registrar at least one week in advance of withdrawal. Charges for full time will be continued against him unless this is done. The withdrawal slip must bear the approval of the President before being presented to the Cashier for refund.

### REFUNDS

For withdrawal within five days full refund is made of fixed charges, athletic fee, special fee, and student activities fee, with a deduction of $5.00 to cover cost of registration. All refunds for board, lodging, and laundry are pro-rated.

After five days, and until November 1, the first semester, or March 10, the second semester, refunds on all charges will be pro-rated, with a deduction of $5.00 to cover cost of registration.

After November 1, or March 10, refunds are granted for board and laundry only, amounts to be pro-rated.

No refunds are made without the written consent of the student's parent or guardian, except to students who pay their own expenses.

No student is given cash for any part of his or her refund until all outstanding checks have been honored by the banks on which they are drawn.

### EXPENSES AT BALTIMORE

The fees and expenses for the schools located in Baltimore are as follows:

| | Matriculation | Tuition | | Laboratory | Graduation |
|---|---|---|---|---|---|
| | | Resident | Non-Resident | | |
| Medicine | $10.00 (once only) | $350.00 | $500.00 | $25.00 yr. | $15.00 |
| *Dentistry | 10.00 (once only) | 250.00 | 300.00 | 40.00 yr. | 15.00 |
| Pharmacy | 10.00 (once only) | 200.00 | 250.00 | 40.00 yr. | 15.00 |
| Law (night) | 10.00 (once only) | 150.00 | 200.00 | .......... | 15.00 |
| (day) | 10.00 (once only) | 200.00 | 250.00 | .......... | 15.00 |

An applicant for admission to any of the schools is charged a record investigation fee of $2.00.

* The student is required to pay, once only, a dissecting fee of $15.00.

Note—Late registration fee, $5.00.

## STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect, however, to earn enough to pay all his expenses. The amounts vary, but some earn from one-fourth to three-fourths of all the required funds.

Generally the first year is the hardest for those desiring employment. After one has demonstrated that one is worthy and capable, there is much less difficulty in finding work.

During the past three semesters, through the Federal Emergency Relief Administration, the University has been enabled to offer needy students a limited amount of work on special projects, the remuneration for which averages about $15 monthly. It is not known how long the Government will continue to extend this aid.

The University assumes no responsibility in connection with employment. It does, however, maintain a bureau to aid needy students. The nearby towns and the University are canvassed, and a list of available positions is placed at the disposal of the students.

### SCHOLARSHIPS AT COLLEGE PARK

The Board of Regents, at its recent annual meeting, established a new policy for the awarding of scholarships. The President of the University was authorized to appoint a faculty committee of five to interview applicants and make recommendations as to awards. These recommendations will be made to the President, and appointments will be subject to approval by the Board of Regents.

All applications must be filed on a blank form furnished by the University, and no applicant will be awarded a scholarship until after he or she has had a physical examination by the University of Maryland Department of Health.

Each applicant will be requested to appear before the Faculty Committee for a personal interview.

The Faculty Committee, in its consideration of applicants, will hold as a primary factor the apparent capacity of the applicant for leadership.

The scholarship holders will be appointed on a yearly basis, but reappointment until graduation may be made in any case in which the student proves worthy.

The scholarship will exempt the holder from payment of fixed charges ($125.00) and from non-resident fees, wherever such fees are applicable. Board and lodging and all other expenses, including laboratory and other fees, must be paid by the student holding a scholarship. These charges, payable after the scholarship allowance has been deducted, amount to a little more than $400.00 per year for a boarding student. No scholarships covering board and lodging are awarded.

Applications should be sent to Professor J. E. Metzger, Chairman, Faculty Committee on Scholarships, College Park, Md.

## HONORS AND AWARDS

### SCHOLARSHIP HONORS AND AWARDS

**Scholarship Honors.** Final honors for excellence in scholarship are awarded to one-fifth of the graduating class in each college. *First honors* are awarded to the upper half of this group; *second honors* to the lower half.

**The Goddard Medal.** The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County who makes the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Anne K. Goddard James, of Washington, D. C.

**Sigma Phi Sigma Medal.** The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to the freshman who makes the highest scholastic average during the first semester.

**Alpha Zeta Medal.** The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

**Dinah Berman Memorial Medal.** The Dinah Berman Memorial Medal is awarded annually to the sophomore who has attained the highest scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

**The Kappa Kappa Gamma Sorority** offers annually a loan of one hundred dollars ($100.00), without interest, to a woman student registered in the University of Maryland and selected by the Scholarship Committee—the said Committee to be composed of the deans of all Colleges in which girls are registered, including the Dean of Women and the Dean of the Graduate School.

**Mortar Board Cup.** Offered to the woman member of the senior class who has been in attendance at least three full years, and who has made the highest scholastic average.

**Delta Delta Delta Medal.** This sorority awards a medal annually to the girl who attains the highest average in academic work during the sophomore year.

**A. A. U. W. Loan.** The College Park Branch of the American Association of University Women offers annually a loan of $100 to a woman student of junior or senior standing who has been in attendance at the University of Maryland for at least one year. Awards are made on the basis of scholarship, character, and financial need. Applications should be made to the Scholarship Committee of the A. A. U. W.

## MILITARY AWARDS

**The Governor's Cup.** Offered each year by His Excellency, the Governor of Maryland, to the best drilled company.

**Military Faculty Award.** The Military faculty of the University presents an award to the student who has done most for the Reserve Officers' Training Corps.

**Class of '99 Gold Medal.** The Class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best drilled soldier.

**Company Saber.** The Military Department awards annually to the captain of the best drilled company of the University a silver mounted saber.

**The Alumni Cup.** The Alumni offer each year a cup to the commanding officer of the best drilled platoon.

**Scabbard and Blade Saber.** This saber is offered for the commander of the winning platoon.

**Scabbard and Blade Medals.** These medals are offered for the freshman students who remain longest in the individual competition, one per battalion.

**Gold Medals.** Offered by the Military Department to the two students who contribute the most to the success of the band. Gold Medals are offered also to the members of the best drilled squad. Gold Medals are likewise presented by the Department to the respective battalion commanders.

A **Silver Medal** is presented by the Military Department to the student who makes the highest score in the Third Corps Area Match.

A **Bronze Medal** is similarly awarded to the student making the second highest score in the Third Corps Area Match.

A **Gold Medal** is awarded to the member of the Varsity R. O. T. C. Rifle Team who fired the high score of the season.

A **Gold Medal** is awarded to the member of the Freshman Rifle Team who fired the high score of the season.

## PUBLICATIONS AWARDS

Medals are offered in Diamondback, Terrapin, and Old Line work, for the students who have given most efficient and faithful service throughout the year.

## ATHLETIC AWARDS

**Silvester Watch for Excellence in Athletics.** The Class of 1908 offers annually to "the man who typified the best in college athletics" a gold watch. The watch is given in honor of a former President of the University, R. W. Silvester.

**Maryland Ring.** The Maryland Ring is offered by Charles L. Linhardt to the Maryland man who is adjudged the best athlete of the year.

## CITIZENSHIP AWARDS

**Citizenship Prize for Men.** A gold watch is presented annually by H. C. Byrd, a graduate of the Class of 1908, to the member of the senior class who, during his collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

**Citizenship Prize for Women.** The Citizenship Prize is offered by Mrs. Albert F. Woods to the woman member of the senior class who, during her collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

# STUDENT ACTIVITIES

The following description of student activities covers those of the undergraduate divisions of College Park. The description of those in the Baltimore divisions is included in the appropriate chapters in Section II.

## GOVERNMENT

**Regulation of Student Activities.** The association of students in organized bodies, for the purpose of carrying on voluntary student activities in orderly and productive ways, is recognized and encouraged. All organized student activities, except those which are controlled by a special board or faculty committee, are under the supervision of the Committee on Student Affairs, subject to the approval of the President. Such organizations are formed only with the consent of the Committee on Student Affairs and the approval of the President. Without such consent and approval no student organization which in any way represents the University before the public, or which purports to be a University organization or an organization of University students, may use the name of the University in connection with its own name, or in connection with its members as students.

**The Student Life Committee,** a faculty committee appointed by the President, keeps in close touch with all activities and conditions, excepting classroom work, that affect the student, and, acting in an advisory capacity, endeavors to improve any unsatisfactory conditions that may exist.

A pamphlet entitled *Academic Regulations*, issued annually and distributed to the students in the fall, contains full information concerning student matters as well as a statement of the rules of the University.

**Eligibility to Represent the University.** Only students in good standing are eligible to represent the University in extra-curricular contests. No student while on probation may represent the University in such events as athletic contests, glee club concerts, dramatic performances, and debates.

**Discipline.** In the government of the University, the President and faculty rely chiefly upon the sense of responsibility of the students. The student who pursues his studies diligently, attends classes regularly, lives honorably, and maintains good behavior meets this responsibility. In the interest of the general welfare of the University, those who fail to maintain these standards are asked to withdraw. Students are under the direct supervision of the University only when on the campus, but they are responsible to the University for their conduct wherever they may be.

Fraternities and sororities, as well as all other clubs and organizations recognized by the University, are expected to conduct their social and financial activities in accordance with the rules of good conduct and upon sound business principles. Where such rules and principles are observed, individual members will profit by the experience of the whole group, and thereby become better fitted for their life's work after graduation. Rules governing the different activities will be found in the list of Academic Regulations.

**Student Government.** The Student Government Association consists of two houses—the Executive Council, and the Student Congress—and operates under its own constitution. Its officers are a President, a Vice-President, a Secretary, and a Treasurer.

The Executive Council holds meetings the second and fourth Thursdays of each month, while the Congress meets the first and third Wednesdays. The Students' Executive Council, with the aid of the Committee on Student Affairs, which acts as an advisory board to the Council, performs the executive duties incident to managing student affairs.

**Women Students' Government Association** is an organization comprising all the women students, the business of which is the management of affairs concerning the women students exclusively. It also operates under its own constitution. Its officers are the same as those of the General Students' Assembly. Its Executive Council has the advisory cooperation of the Dean of Women.

## SOCIETIES

**Honorary Fraternities.** Honorary fraternities and societies in the University at College Park are organized to uphold scholastic and cultural standards in their respective fields. These are Phi Kappa Phi, a national honorary fraternity open to honor students, both men and women, in all branches of learning; Sigma Xi, scientific fraternity; Alpha Zeta, a national honorary agricultural fraternity recognizing scholarship and student leadership; Tau Beta Pi, a national honorary engineering fraternity; Omicron Delta Kappa, men's national honor society, recognizing conspicuous attainment in non-curricular activities and general leadership; Kappa Phi Kappa, a national educational fraternity; Beta Phi Theta, an honorary French fraternity; Sigma Delta Pi, a national honorary Spanish fraternity; Alpha Chi Sigma, a national honorary chemical fraternity; Scabbard and Blade, a national military society; Pi Delta Epsilon, a national journalistic fraternity; Mortar Board, the national senior honor society for women; Alpha Lambda Delta, a national freshman women's honor society promoting scholarship; Theta Gamma, a local Home Economics society; Alpha Psi Omega (Iota Chapter), national dramatic society; and Chi Alpha, local women's journalistic fraternity.

**Fraternities and Sororities.** There are thirteen national fraternities and one local fraternity, and five national sororities and one local sorority at College Park. These in the order of their establishment at the University are Kappa Alpha, Sigma Phi Sigma, Sigma Nu, Phi Sigma Kappa, Delta Sigma Phi, Alpha Gamma Rho, Theta Chi, Phi Alpha, Tau Epsilon Phi, Alpha Tau Omega, Phi Delta Theta, Lambda Chi Alpha, and Alpha Lambda Tau (national fraternities); and Alpha Omicron Pi, Kappa Delta, Kappa Kappa Gamma, Delta Delta Delta, and Alpha Xi Delta (national sororities); and Sigma Alpha Mu (local fraternity), and Beta Pi Sigma (local sorority).

**Clubs and Societies.** Many clubs and societies, with literary, scientific, social, and other special objectives are maintained in the University. Some of these are purely student organizations; others are conducted jointly by students and members of the faculty. The list is as follows: Agricultural Council, Authorship Club, Bacteriological Society, Engineering Society, Entomological Society, Horticulture Club, Latin American Club, Live Stock Club, New Mercer Literary Society, Poe Literary Society, Calvert Forum, Women's Athletic Association, Girls' "M" Club, Footlight Club, Debating Club, Rossbourg Club, Mathematics Society, Economics Club, Chess Club, Strauss Club, DeMolay Club, Psyche Club, Der Deutsche Verein, Riding Club, Swimming Club, and Opera Club.

**Student Grange.** The Student Grange is a chapter of the National Grange. With the exception of two faculty advisers, the Student Grange membership is made up entirely from the student body. New members are elected by ballot when they have proved their fitness for the organization.

The general purposes of the Student Grange are to furnish a means through which students keep in touch with state and national problems of agricultural, economic, or general educational nature; to gain experience in putting into practice parliamentary rules; to learn the meaning of leadership, and to learn how to assume leadership that aids in the ultimate task of serving in one's community.

## RELIGIOUS INFLUENCES

**Staff.** The University recognizes its responsibility for the welfare of the students, not only as intellectual, but as moral and spiritual beings. Student Pastors representing the major denominational bodies are officially appointed by the Churches for work with the students of their respective faiths. Each of the Student Pastors is also pastor of a local church of his denomination, which the students are encouraged to attend.

**Religious Work Council.** The Religious Work Council, comprising the President of the University, acting as Chairman, the Student Pastors, members of the Faculty, and students, focalizes, reviews, and stimulates the religious thought and activity of the student body. This Council has an executive secretary with an office in the Student Center, who is daily at the service of the students and the churches.

While there is no interference with any one's religion, religion itself is recognized, and every possible provision made that the student may keep in contact with the church of his choice.

**Denominational Clubs.** The Episcopal Club, the Lutheran Club, the Presbyterian Club, and the Baptist Club are active organizations of the students (both men and women) of their respective denominations, and their friends, banded together for mutual fellowship and Christian service.

**The Maryland Christian Association.** The Maryland Christian Association is a fellowship of students and teachers, both men and women, who unite for religious fellowship and service. The Association includes the Y. M. C. A. and the Y. W. C. A. of the University, and all students and teachers are invited to join and to participate in its activities. The Association renders a number of services upon the campus, such as welcoming and assisting new students, securing speakers, holding religious services, seminars, discussion groups, forums, and social functions. The Association also sponsors the Cosmopolitan Club, which seeks to welcome and to create fellowship between students at the University from foreign countries.

## STUDENT PUBLICATIONS

Three student publications are conducted under the supervision of the Faculty Committee on Student Publications.

**The Diamondback,** a weekly, six-to-eight-page newspaper, is published by the students. This publication summarizes the University news, and provides a medium for discussion of matters of interest to the students and the faculty.

**The Terrapin** is the student annual published by the Junior Class. It is a reflection of student activities, serving to commemorate the principal events of the college year.

**The Old Line** is a comic magazine put out quarterly by the students.

## ALUMNI

The alumni are organized into several units, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs. Different alumni units represent the Medical School, the Pharmacy School, the Dental School, the Law School and the School of Nursing, while the group of colleges at College Park are represented by one unit. This College Park unit is governed by a board made up of representatives from each of the colleges located at College Park.

The Alumni Council is made up of elected representatives from the several units, with a membership of twenty-four. Each alumni unit in Baltimore elects two representatives to the Council; the alumni representing the College Park group of colleges elect twelve representatives.

# SECTION II

# Administrative Divisions

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## COLLEGE OF AGRICULTURE

HARRY J. PATTERSON, *Dean*

Agriculture is the primary pursuit of the human race, and permanent prosperity is in direct proportion to the producing capacity of the land. Land-Grant Colleges were founded to foster teaching of scientific agriculture.

The College of Agriculture has a two-fold purpose. On the one hand, it gives a liberal educational background in order that its graduates may live more satisfying lives, no matter what may be their eventual occupations. On the other hand, it trains men and women for the various occupations based upon those sciences which are fundamental to agriculture. With this training, some will find occupation as scientific specialists, others will engage in business and professional pursuits having close agricultural contacts, while others will take up practical farming.

Agriculture is constantly changing; no cropping system can be worked out once and for all time; new as well as old pests and diseases must be constantly combated; better feeding and breeding of live stock, and efficient marketing methods must be substituted for inefficient methods if agriculture is to maintain its position with the other industries. Above all, agriculture must be made profitable to the tiller of the soil, and must be established as a paying business for those who engage in it.

The curricula of the College of Agriculture are planned to give the student thorough and practical instruction in agriculture and related sciences, and at the same time afford him an opportunity to specialize along the lines in which he is particularly interested.

### Departments

The College of Agriculture includes the following departments: Agricultural Economics; Agronomy (including Crops and Soils); Animal Husbandry; Bacteriology; Botany; Dairy Husbandry; Entomology and Bee Culture; Farm Forestry; Farm Management; Farm Mechanics; Genetics and Statistics; Horticulture (including Pomology, Vegetable Gardening, Landscape Gardening, and Floriculture); Plant Pathology; Plant Physiology and Bio-chemistry; Poultry Husbandry.

### Admission

The requirements for admission are discussed under "Entrance," in **Section I.**

### Requirements for Graduation

One hundred and twenty-eight semester hours are required for graduation. The detailed requirements for each department are included in the discussion of Curricula in Agriculture.

### Farm and Laboratory Practice

The head of each department will help to make available opportunities for practical or technical experience along his major line of study for each student whose major is in that department and who is in need of such experience. For inexperienced students in many departments this need may be met by one or more summers spent on a practical farm.

### Student Organizations

The students of the College of Agriculture maintain a Student Grange, an Agricultural Council, a Bacteriological Society, an Entomological Society, a Horticulture Club, a Livestock Club, and an honor fraternity, Alpha Zeta.

Membership and work in these is voluntary, and no college credits are given for work done in them; yet much of the training obtained in them is fully as valuable as that acquired from regularly prescribed courses.

The Student Grange represents the Great National Farmers' fraternity of the Order of Patrons of Husbandry, and emphasizes training for rural leadership. It sponsors much deputation work in local granges throughout the State. The Horticulture Club sponsors the Horticulture Show in the fall, and the Livestock Club, the Fitting and Showing Contest in the spring. Both of these exhibitions are creditable University functions. They give valuable training and inspiration to the students.

### Alpha Zeta—National Agricultural Honor Fraternity

Membership in this fraternity is chosen from students in the College of Agriculture who have displayed agricultural motive and executive ability. This organization fosters scholarship, and to that end awards a gold medal to the member of the freshman class in agriculture who makes the highest record during the year.

### Fellowships

A limited number of graduate fellowships, which carry remuneration of $400 to $800 yearly, are available to graduate students. The holders of these fellowships spend a portion of their time assisting in classes and laboratories. The rest of the time is used for original investigation or assigned study. (See Graduate School.)

### Curricula in Agriculture

Curricula within the College of Agriculture divide into three general classes.

(1) Scientific curricula are designed to prepare students for positions as technicians, teachers, or investigators. These positions are usually in the

various scientific and educational departments, or bureaus of the Federal, State, or Municipal governments; in the various schools or experiment stations; or in the laboratories of private corporations.

(2) Technical curricula are designed to prepare students for farming as owners, tenants, managers, or specialists; for positions as county agricultural agents, or teachers of agriculture in high schools; as executives, salesmen, or other employees in commercial businesses with close agricultural contact and point of view.

(3) Courses of study may be arranged for any who desire to return to the farm after one or more years of training in practical agricultural subjects. (For details see "Special Students in Agriculture," page 81.)

### Student Advisers

Each freshman in the College of Agriculture is assigned to an adviser from the faculty, who is selected with due consideration for the major line of interest of the student. Not more than five or six students are assigned to any one person. With the advice and consent of his adviser and the dean, any student may make such modifications in his curriculum as are deemed advisable to meet the requirements of his particular case.

The suggested curricula in the catalogue include a sufficient number of electives to afford opportunity for those who so desire to select major and minor fields of study from different departments. In the first two years, however, it is usually wise to follow the recommendations contained in the footnotes below the suggested curricula.

### General Curriculum

| | *Freshman Year* | *Semester* *I* | *II* |
|---|---|---|---|
| | General Chemistry (Chem. 1y) | 4 | 4 |
| | Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| | Basic R. O. T. C. (M. I. 1 y) or Physical Education (Phys. Ed. 1 y or Phys. Ed. 2 y and 4 y) | 1 | 1 |
| | Reading and Speaking (P. S. 1y) | 1 | 1 |
| | Elect one from each of the following groups: | | |
| 0 | Biology (Bot. 1f or s and Zool. 1f or s) | 4 | 4 |
| 1 | Botany (Bot. 1f and 2 s) | | |
| 3 | Mathematics (Math. 1f and 2 s) | 3 | 3 |
| 1–7 | Modern Language (French 1y or German 1y) | | |
| 4 | Entomology (Ent. 1f and 3 s) | | |
| 5 | Agriculture (A. H. 1f and D. H. 1 s) | | |
| | or (Agron. 1f and 2 s) | | |
| | or (Hort. 1f and 11 s) | | |

*Sophomore Year*

(See special curricula for Agricultural Chemistry, Agricultural Education, Bacteriology, Botany, Entomology, Floriculture, and Landscape Gardening.)

| | | *Semester* *I* | *II* |
|---|---|---|---|
| | Basic R. O. T. C. (M. I. 2y) | 2 | 2 |
| | Elect one of the following: | | |
| | Chemistry (Chem. 12f and 13 s) | 3–4 | 3 |
| 6 | Economics (A. E. 1f and Econ. 5 s) | | |
| | Elect three or four of the following: | | |
| 7 | Mathematics (Math. 5y) | 10–12 | 11–12 |
| 7 | Physics (Phys. 1y) | | |
| 5 | Geology and Soils (Geol. 1f and Soils 1 s) | | |
| 5 | Agriculture (Any Freshman Elective or Poultry 1 s) | | |

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0. Required of all students except those whose major is Botany.
1. Required of students whose major is Botany.
3. Required of students whose major is Agricultural Chemistry and Landscape Gardening.
4. Required of students whose major is Entomology.
5. Recommended for students who contemplate farming or employment in industries closely associated with farming.
6. Required of students whose major is Agricultural Economics.

3 and 7. Recommended for students who are interested in biological science and hence are likely to pursue graduate studies.

## AGRICULTURAL CHEMISTRY

The objective of the curriculum in Agricultural Chemistry is the fitting of students for work in agricultural experiment stations, and in soil, fertilizer, and food laboratories.

(For special requirements and curriculum see page 95, College of Arts and Sciences.)

## AGRONOMY

In the Department of Agronomy are grouped the courses in farm crops, soils, and plant breeding.

The curriculum in farm crops aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he may register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, investigational work in the State or Federal Experiment Stations, or county agent work.

The division of soils gives instruction in the physics, chemistry, and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate training to students who desire to specialize in soils. Those who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The division possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories, and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves for teaching soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Soils, United States Department of Agriculture.

### Crops Division

| | *Semester* | |
|---|---|---|
| *Junior Year* | *I* | *II* |
| Genetics (Gen. 101f) | 3 | — |
| Technology of Crop Quality (Agron. 102f) | 2 or 3 | — |
| General Bacteriology (Bact. 1f) | 4 | — |
| Expository Writing (Eng. 5f and 6s) | 2 | 2 |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| Fundamentals of Economics (Econ. 5s) | — | 3 |
| Electives | 1 | 11 |
| | 16 | 16 |

| | *Semester* | |
|---|---|---|
| *Senior Year* | *I* | *II* |
| Crop Breeding (Agron. 103f) | 2 | — |
| Advanced Genetics (Gen. 102 s) | — | 2 |
| Agricultural Economics (A. E. 2f) | 3 | — |
| Methods of Crop and Soil Investigations (Agron. 121 s) | — | 2 |
| Selected Crop Studies (Agron. 104f and s) | 1 | 4 |
| Soil Geography (Soils 103f) | 3 | — |
| Farm Drainage (F. Mech. 107 s) | — | 2 |
| Farm Machinery (F. Mech. 101f) | 3 | — |
| Farm Forestry (For. 1 s) | — | 3 |
| Farm Management (F. M. 2f) | 4 | — |
| Electives | — | 7 |
| | 16 | 16 |

### Soils Division

| | *Semester* | |
|---|---|---|
| *Junior Year* | *I* | *II* |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| General Bacteriology (Bact. 1f) | 4 | — |
| Soils and Fertilizers (Soils 1f) | 5 | — |
| Soil Management (Soils 102 s) | — | 3 |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| Electives | 1 | 8 |
| | 16 | 16 |

| | *Semester* | |
|---|---|---|
| *Senior Year* | *I* | *II* |
| Agricultural Economics (A. E. 2f) | 3 | — |
| Farm Management (F. M. 2f) | 4 | — |
| Methods of Crop and Soil Investigations (Agron. 121 s) | — | 2 |
| Soil Geography (Soils 103f) | 3 | — |
| Farm Drainage (F. Mech. 107 s) | — | 2 |
| Electives | 6 | 12 |
| | 16 | 16 |

## ANIMAL HUSBANDRY

The courses in animal husbandry are designed to furnish instruction in the essential principles and practices that are concerned in the breeding, feeding, management, judging, and marketing of horses, beef cattle, sheep, and swine. Attention is given to meat, to wool, and to by-products of the meat industry.

The curriculum in animal husbandry is so planned as to allow plenty of latitude in the selection of courses outside of the department, thus giving the student fundamental training and fitting him to become the owner or superintendent of general or specialized livestock farms.

Opportunity for specialization is offered to those who may desire to become instructors or investigators in the field of animal husbandry.

| | *Semester* | |
|---|---|---|
| *Junior Year* | *I* | *II* |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| General Bacteriology (Bact. 1f) | 4 | — |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Principles of Breeding (A. H. 102 s) | — | 3 |
| Comparative Anatomy and Physiology (Bact. 105f) | 3 | — |
| Genetics (Gen. 101f) | 3 | — |
| Livestock Judging (A. H. 105f and 106 s) | 2 | 2 |
| Electives | 2 | 6 |
| | 16 | 16 |

| *Senior Year* | Semester I | Semester II |
|---|---|---|
| Agricultural Economics (A. E. 2f) | 3 | — |
| Farm Machinery (F. Mech. 101f) | 3 | — |
| Animal Hygiene (Bact. 106 s) | — | 3 |
| Livestock Management (A. H. 103f and 104 s) | 5 | 5 |
| General Physiological Chemistry (Chem. 108 s) | — | 4 |
| Electives | 5 | 4 |
|  | 16 | 16 |

## BACTERIOLOGY AND PATHOLOGY

The present organization of this department has been brought about with two main purposes in view. The first is to give all students of the University an opportunity to obtain a general knowledge of this basic subject. The second purpose is to prepare students for bacteriological positions (including those of dairy, sanitary, food, and soil bacteriologists; and federal, state, and municipal bacteriologists); and for public health, research, and commercial positions. The demand for persons qualified for this work is usually much greater than the supply.

| *Sophomore Year* | Semester I | Semester II |
|---|---|---|
| Elements of Organic Chemistry (Chem. 12f) | 5 | — |
| Quantitative Analysis (Chem. 4 s) | — | 4 |
| General Bacteriology (Bact. 1f) | 4 | — |
| Pathogenic Bacteriology (Bact. 2 s) | — | 4 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| Electives | 5 | 6 |
|  | 16 | 16 |

| *Junior Year* | Semester I | Semester II |
|---|---|---|
| Dairy Bacteriology (Bact. 101f) | 3 | — |
| Sanitary Bacteriology (Bact. 112 s) | — | 3 |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Serology (Bact. 115f) | 4 | — |
| Hematology (Bact. 103f) | 2 | — |
| Advanced Methods (Bact. 122 s) | — | 2 |
| Bacteriology Electives | — | 3–5 |
| Electives | 5 | 6–4 |
|  | 16 | 16 |

| *Senior Year* | Semester I | Semester II |
|---|---|---|
| Bacteriological Problems (Bact. 123f and 124 s) | 2 | 3 |
| Statistics (Gen. 111f) | 2 | — |
| General Physiological Chemistry (Chem. 108 s) | — | 4 |
| Research Methods (Bact. 121f) | 1 | — |
| Advanced Bacteriology (Bact. 127f) | 2 | — |
| Journal Club (Bact. 131f and 132 s) | 1 | 1 |
| Bacteriology Electives | 3–5 | 2–5 |
| Electives | 5–3 | 6–3 |
|  | 16 | 16 |

## BOTANY

The courses listed for the curriculum in botany make a kind of skeleton of essentials, to which the student adds the individual requirements to make a complete four-year course. No electives are permitted in the freshman and sophomore years. In the junior and senior years botanical courses may be elected to fit the individual needs of the student, as not all have the same ends in view. They may wish to prepare for teaching, investigational work in state or governmental experiment stations, governmental inspection, or any other vocations which botanists follow. Both the junior and senior years also allow considerable freedom in the election of non-botanical courses, in order to round out a fairly broad cultural education and to satisfy the educational requirements for those who desire to qualify for high school teaching. The curriculum as outlined lays a good foundation for graduate work in any field of botanical science.

| *Freshman Year* | Semester I | Semester II |
|---|---|---|
| General Botany (Bot. 1f and 2 s) | 4 | 4 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Modern Language (French or German) | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
|  | 16 | 16 |

| | Semester I | II |
|---|---|---|
| *Sophomore Year* | | |
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| Local Flora (Bot. 3 s) | — | 2 |
| General Zoology (Zool. 1 s) | — | 4 |
| Elements of Organic Chemistry (Chem. 12f) | 4 | — |
| Algebra and Plane Trigonometry (Math. 1f and 2 s) | 3 | 3 |
| Modern Language | 3 | 3 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| Electives | — | 2 |
| | 16 | 16 |
| *Junior Year* | | |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| General Physics (Phys. 1y) | 4 | 4 |
| General Bacteriology (Bact. 1 s) | — | 4 |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Electives | 6 | 6 |
| | 16 | 16 |
| *Senior Year* | | |
| Genetics (Gen. 101f) | 3 | — |
| Botanical Electives (Maximum) | 7 | 10 |
| Other Electives (Minimum) | 6 | 6 |
| | 16 | 16 |

## DAIRY HUSBANDRY

The Department of Dairy Husbandry offers courses in two major lines: dairy production and dairy manufacture. The curriculum in each of these is so arranged as to give the student an intimate knowledge of the science, and facility in the art of dairy husbandry practice. The dairy production option is organized to meet the specific requirements of students who are especially interested in the care, feeding, breeding, management, and improvement of dairy cattle and in the production and sale of market milk.

The option in dairy manufactures is planned to meet the particular demands of those interested in the processing and distribution of milk, in dairy plant operation, and in the manufacture and sale of butter, cheese, ice-cream, and other milk products.

The dairy herd and the dairy laboratories are available to students for instruction and for research. Excellent opportunity is, therefore, afforded to both advanced undergraduate and graduate students for original investigation and research. Graduates in the courses in dairy husbandry should be well qualified to become managers of dairy farms, teachers, and investigators in the State and Federal Agricultural Experiment Stations, or to enter the field of commercial dairying.

### Dairy Manufacturing

| | Semester I | II |
|---|---|---|
| *Sophomore Year* | | |
| R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Chemistry (Chem. 12f and 4 s) | 5 | 4 |
| General Bacteriology (Bact. 1 s) | — | 4 |
| Introductory Dairy Science (D. H. 2f) | 2 | — |
| Economics (A. E. 1f and Econ. 5 s) | 3 | 3 |
| Electives | 4 | 3 |
| | 16 | 16 |
| *Junior Year* | | |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Dairy Bacteriology (Bact. 101f and 102 s) | 3 | 3 |
| Dairy Manufacturing (D. H. 105f and 106 s) | 5 | 5 |
| Marketing and Grading Dairy Products (D. H. 109 s) | — | 2 |
| Elective | 6 | 4 |
| | 16 | 16 |
| *Senior Year* | | |
| Agricultural Economics (A. E. 2f) | 3 | — |
| Market Milk (D. H. 107f) | 5 | — |
| Analysis of Dairy Products (D. H. 108 s) | — | 3 |
| Dairy Production (D. H. 101y) | 3 | 3 |
| Electives | 5 | 10 |
| | 16 | 16 |

### Dairy Production

| | I | II |
|---|---|---|
| *Junior Year* | | |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| General Bacteriology (Bact. 1f) | 4 | — |
| Dairy Production (D. H. 101y) | 3 | 3 |
| Principles of Breeding (A. H. 102 s) | — | 3 |
| Advanced Dairy Cattle Judging (D. H. 102 s) | — | 1 |
| Genetics (Gen. 101f) | 3 | — |
| Farm Drainage (F. Mech. 107 s) | — | 2 |
| Electives | 4 | 2 |
| | 16 | 16 |

| *Senior Year* | *Semester* I | II |
|---|---|---|
| Agricultural Economics (A. E. 2f) | 3 | — |
| Market Milk (D. H. 107f) | 5 | — |
| Dairy Bacteriology (Bact. 101f) | 3 | — |
| Animal Hygiene (Bact. 106 s) | — | 3 |
| Advanced Study of Dairy Breeds (D. H. 103 s) | — | 2 |
| Electives | 5 | 11 |
| | 16 | 16 |

## ENTOMOLOGY

This department is engaged in the teaching of entomology to all agricultural students as a basis for future work in pest control, in the preparation of technically trained entomologists, and in furnishing courses to students in Arts and Sciences and Education.

The success of the farmer and particularly the fruit grower is in large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops each year. Successful methods of control are emphasized in the economic courses.

The fact that the entomological work of the Experiment Station, the Extension Service, the College of Agriculture, and the office of the State Entomologist are in one administrative unit, enables the student in this department to avail himself of the many advantages accruing therefrom. Advanced students have special advantages in that they may be assigned to work on Station projects already under way. The department takes every advantage of the facilities offered by the Bureau of Entomology of the U. S. Department of Agriculture, the National Museum, Smithsonian Institution, various other local laboratories, the libraries in Washington, and the Washington Entomological Society. There is an active Entomological Society composed of the students and teachers of the department. A monthly news magazine is published, and there are numerous other profitable projects in which all students may participate. Thus students are given many opportunities of meeting authorities in the various fields of entomology, to observe projects under way, consult collections, and hear addresses on every phase of entomology. Following is the suggested curriculum in Entomology. It can be modified to suit individual demand. Students not starting this curriculum in their freshman year can with a few changes in schedule meet the requirements in the four years.

| | *Semester* I | II |
|---|---|---|
| *Freshman Year* | | |
| General Chemistry (Chem. 1y) | 4 | 4 |
| General Zoology (Zool. 1f) | 4 | — |
| General Botany (Bot. 1 s) | — | 4 |
| Introductory Entomology (Ent. 1f) | 3 | — |
| Insect Biology (Ent. 3 s) | — | 3 |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y) | 1 | 1 |
| | 16 | 16 |
| *Sophomore Year* | | |
| Elements of Organic Chemistry (Chem. 12f) | 4 | — |
| Agricultural Chemical Analysis (Chem. 13 s) | — | 3 |
| Insect Morphology and Taxonomy (Ent. 2y) | 3 | 3 |
| French or German (1y) | 3 | 3 |
| Advanced Composition and Rhetoric (Eng. 3f. and 4s.) | 2 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Electives | 3 | 4 |
| | 17 | 17 |
| *Junior Year* | | |
| *Economic Entomology (Ent. 101y) | 2 | 2 |
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| General Bacteriology (Bact. 1 s) | — | 4 |
| French or German (2y) | 3 | 3 |
| Electives | 7 | 7 |
| | 16 | 16 |
| *Senior Year* | | |
| *Insect Pests of Special Groups (Ent. 104y) | 3 | 3 |
| Seminar (Ent. 103y) | 1 | 1 |
| Special Problems (Ent. 4f or s) | 2 | 2 |
| Electives | 10 | 10 |
| | 16 | 16 |

Electives in physics, zoology, plant pathology, plant physiology, plant taxonomy, genetics, statistics, and modern languages are urged as especially desirable.

## FARM MANAGEMENT AND AGRICULTURAL ECONOMICS

The purpose of the study of farm management is to enable the individual farmer so to organize his business as to produce the greatest continuous profit. This can be done, however, only when the organization is in accordance with the broader principles of agricultural economics. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to co-ordinate them into the most efficient farm organization. Farming is a business, and as such demands for its successful conduct the use of business methods. As a preliminary to the technical study of farm management a course in farm accounting is offered. This course is not elaborate, but is designed to meet the need for a simple yet accurate system of farm business records.

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* Courses taken by both juniors and seniors in alternate years.

The aim of the farm management course is to assist the student to perceive the just relationship of the several factors of production and disposition as applicable to local conditions, and to develop in him executive and administrative capacity.

Agricultural economics considers the fundamental principles underlying production, distribution, and consumption, more especially as they bear upon agricultural conditions. Land, labor, and capital are considered in their relationship to agriculture.

The farmer's work does not end with the production of crops or animal products. More and more it is evident that economical distribution is as important a factor in farming as is economical production.

Students well trained in farm management and agricultural economics are in demand for county agent work, farm bureau work, experiment station or United States Government investigation, and college or secondary school teaching.

| *Junior Year* | *Semester* *I* | *II* |
|---|---|---|
| Agricultural Economics (A. E. 2f) | 3 | — |
| Marketing of Farm Products (A. E. 102 s) | — | 3 |
| Farm Cost Accounting (A. E. 107 s) | — | 3 |
| Business Law (Econ. 107f and 108 s) | 3 | 3 |
| Technology of Crop Quality (Agron. 102f) | 2 | — |
| Business Organization and Operation (Econ. 7f) | 3 | — |
| Statistics (Gen. 111f and 112 s) | 2 | 2 |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Electives | 1 | 3 |
| | 16 | 16 |

| *Senior Year* | | |
|---|---|---|
| Co-operation in Agriculture (A. E. 103f) | 3 | — |
| Transportation of Farm Products (A. E. 101 s) | — | 3 |
| Seminar (A. E. 202y) | 1–3 | 1–3 |
| Farm Organization and Operation (A. E. 108f) | 3 | — |
| Farm Machinery (F. Mech. 101f) | 3 | — |
| Agricultural Finance (A. E. 104 s) | — | 3 |
| Rural Life and Education (R. Ed. 104 s) | — | 3 |
| Money and Credit (Econ. 101f) | 2 | — |
| Electives | 4–2 | 6–4 |
| | 16 | 16 |

## FARM MECHANICS

The Department of Farm Mechanics is organized to offer students of agriculture training in those agricultural subjects which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery, farm buildings, and farm drainage.

The modern tendency in farming is to replace hand labor by the operation of machinery. In many cases horses are being replaced by tractors. Trucks, automobiles, and stationary engines are found on almost all farms. It is highly advisable that the student of any branch of agriculture have a working knowledge of the design, adjustments, and repair of these machines.

More than one-fourth of the total value of Maryland farms is invested in the buildings. The study of the design of various buildings, from the standpoint of economy, sanitation, efficiency, and appearance, is, therefore, important.

Studies included in the study of drainage are as follows: the principles of tile drainage, the laying out and construction of tile drain systems, the use of open ditches, and Maryland drainage laws.

## GENERAL AGRICULTURE

Those who do not care to specialize in any particular phase of agriculture will pursue the following curriculum:

| *Junior Year* | *Semester* *I* | *II* |
|---|---|---|
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| General Bacteriology (Bact. 1f) | 4 | — |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Farm Poultry (Poultry 1 s) | — | 3 |
| Genetics (Gen. 101f) | 3 | — |
| Farm Accounting (F. M. 1 s) | — | 3 |
| Principles of Breeding (A. H. 102 s) | — | 3 |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Electives | — | 2 |
| | 17 | 16 |

| *Senior Year* | | |
|---|---|---|
| Agricultural Economics (A. E. 2f) | 3 | — |
| Farm Management (F. M. 2f) | 4 | — |
| Farm Machinery (F. Mech. 101f) | 3 | — |
| Gas Engines, Tractors, and Automobiles (F. Mech. 102 s) | — | 3 |
| Farm Drainage (F. Mech. 107 s) | — | 2 |
| Farm Forestry (For. 1 s) | — | 3 |
| Electives | 6 | 8 |
| | 16 | 16 |

## GENETICS AND STATISTICS

Rapid accumulation of knowledge in the field of genetics has revolutionized the viewpoint of those interested in plant and animal breeding and in eugenics.

Teachers and investigators have increasing occasion to interpret statistical data presented by others, as well as to gather and organize original material.

The Department of Genetics and Statistics offers students training in (1) the principles of heredity and genetics, and (2) the tools and methods employed in statistical description and induction.

## HORTICULTURE

There are several reasons why the State of Maryland should be preeminent in horticulture and offer excellent opportunities for horticultural enterprises. The more evident ones are the wide variation in soil and climate from the Eastern Shore to the mountains in the West, the nearness to many large Eastern markets, and the large number of railroads, interurban lines, highways, and waterways, which combine to favor the growing of horticultural crops and to make marketing easy and comparatively cheap.

The Department of Horticulture offers four major lines of work: pomology, olericulture, floriculture, and landscape gardening. Students wishing to specialize in horticulture may take a general course during the four years, or the student may specialize in any of the four divisions. The courses have been so planned that upon their completion students should be fitted to engage in commercial work, county agent work, or teaching and investigational work in State and Federal institutions.

On the University campus, the department has at its disposal ten acres of ground devoted to vegetable gardening, eighteen acres of orchards, small fruits, and vineyards, twelve greenhouses, in which research and teaching are conducted, and one building which is devoted to horticultural teaching and research. In addition, the department has acquired 250 acres of land, three miles from the college, which tract is used for experimental and teaching purposes. Members of the teaching staff are likewise members of the experiment station staff, hence students have an opportunity to become acquainted with the research being carried on in the department. Excellent opportunity for investigating new problems is afforded to advanced undergraduates and to graduate students.

Students who intend to specialize in Pomology, Olericulture, Floriculture, or Landscape Gardening are required to take courses of study which it is felt will best equip them for their future work in Horticulture.

### Pomology—Olericulture—Floriculture

| | Semester | |
|---|---|---|
| *Freshman Year* | *I* | *II* |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| General Botany (Bot. 1f and 2s) | 4 | 4 |
| Algebra (Math. 1f); Plain Trigonometry (Math. 2s) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R.O.T.C. (M. I. 1y) or Physical Education (Phys. Ed. 1y) | 1 | 1 |
| | 16 | 16 |
| *Sophomore Year* | | |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| Geology (Geol. 1f) | 3 | — |
| Soils and Fertilizers (Soils 1s) | — | 5 |
| Elements of Organic Chemistry (Chem. 12f) | 3 | — |
| Agricultural Chemical Analysis (Chem. 13s) | — | 3 |
| Elementary Pomology (Hort. 1f) | 3 | — |
| *Principles of Vegetable Culture (Hort. 11s) | — | 3 |
| **General Landscape Gardening (Hort. 31s) | — | 2 |
| Practical Pomology Lab. (Hort. 7f, 8s) | 2 | 2 |
| Basic R.O.T.C. (M.I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Electives | — | 0 or 1 |
| | 17 | 15 |

### Pomology

| | | |
|---|---|---|
| *Junior Year* | | |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Small Fruit Culture (Hort. 4 s) | — | 2 |
| Fruit Judging (Hort. 5f) | 2 | — |
| Systematic Pomology (Hort. 107f) | 3 | — |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| Introductory Entomology (Ent. 1 s) | — | 3 |
| Genetics (Gen. 101f) | 3 | — |
| Electives | 2 | 6 |
| | 16 | 16 |
| *Senior Year* | | |
| Commercial Fruit Growing (Hort. 101f) | 3 | — |
| Economic Fruits of the World (Hort. 102f) | 2 | — |
| Horticultural Seminar (Hort. 43y) | 1 | 1 |
| General Landscape Gardening (Hort. 31 s) | — | 2 |
| General Floriculture (Hort. 21f) | 2 | — |
| Farm Management (F. M. 2f) | 4 | — |
| Horticultural Research and Thesis (Hort. 42y) | 2 | 2 |
| Electives | 2 | 11 |
| | 16 | 16 |

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*Required for students in Pomology and Olericulture.
**Required for students in Floriculture.

## Olericulture

*Junior Year*

| | *Semester* *I* | *II* |
|---|---|---|
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Small Fruit Culture (Hort. 4 s) | — | 2 |
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| Genetics (Gen. 101f) | 3 | — |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Truck Crop Production (Hort. 12f) | 3 | — |
| Vegetable Forcing (Hort. 13 s) | — | 3 |
| Introductory Entomology (Ent. 1 s) | — | 3 |
| Electives | 4 | 3 |
| | — | — |
| | 16 | 16 |

*Senior Year*

| | | |
|---|---|---|
| Farm Management (F. M. 2f) | 4 | — |
| General Landscape Gardening (Hort. 31 s) | — | 2 |
| General Floriculture (Hort. 21f) | 2 | — |
| Tuber and Root Crops (Hort. 103f) | 2 | — |
| Systematic Olericulture (Hort. 105f) | 3 | — |
| Advanced Truck Crop Production (Hort. 104 s) | — | 2 |
| Horticultural Research and Thesis (Hort. 42y) | 2 | 2 |
| Horticultural Seminar (Hort. 43y) | 1 | 1 |
| Electives | 2 | 9 |
| | — | — |
| | 16 | 16 |

*Junior Year*

| | | |
|---|---|---|
| *Greenhouse Management (Hort. 22y) | 3 | 3 |
| Floricultural Practice (Hort. 23y) | 2 | 2 |
| Floricultural Trip (Hort. 27 s) | — | 1 |
| *Greenhouse Construction (Hort. 24 s) | — | 2 |
| *Garden Flowers (Hort. 26f) | 3 | — |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| Local Flora (Bot. 3 s) | — | 2 |
| Elements of Landscape Design (Hort. 32f) | 3 | — |
| Electives | — | 1 |
| | — | — |
| | 17 | 16 |

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* Courses taken by both sophomores and juniors in alternate years.

*Senior Year*

| | *Semester* *I* | *II* |
|---|---|---|
| *Commercial Floriculture (Hort. 25y) | 3 | 3 |
| Plant Materials (Hort. 106y) | 2 | 3 |
| Vegetable Forcing (Hort. 13 s) | — | 3 |
| Agricultural Economics (A. E. 2f) | 3 | — |
| Horticultural Seminar (Hort. 43y) | 1 | 1 |
| Horticultural Research and Thesis (Hort. 42y) | 2 | 2 |
| Electives | 5 | 4 |
| | — | — |
| | 16 | 16 |

## Landscape Gardening

*Freshman Year*

| | | |
|---|---|---|
| General Chemistry (Chem. 1y) | 4 | 4 |
| General Zoology (Zool. 1f) | 4 | — |
| General Botany (Bot. 1 s) | — | 4 |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Algebra (Math. 1f); Plane Trigonometry (Math. 2 s) | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y) | 1 | 1 |
| | — | — |
| | 16 | 16 |

*Sophomore Year*

| | | |
|---|---|---|
| French or German | 3 | 3 |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| Geology (Geol. 1f) | 3 | — |
| Soils and Fertilizers (Soils 1 s) | — | 3 |
| Plane Surveying (Surv. 2y) | 2 | 2 |
| *General Landscape Gardening (Hort. 31 s) | — | 2 |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Engineering Drafting (Dr. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Electives | — | 2 |
| | — | — |
| | 17 | 16 |

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* Courses taken by both sophomores and juniors in alternate years.

| *Junior Year* | *Semester* *I* | *II* |
|---|---|---|
| Elementary Pomology (Hort. 1f) | 3 | — |
| †Plant Materials (Hort. 106y) | 2 | 3 |
| †History of Landscape Gardening (Hort. 35f) | 1 | — |
| *Elements of Landscape Design (Hort. 32f) | 3 | — |
| †Landscape Design (Hort. 33 s) | — | 3 |
| †Garden Flowers (Hort. 26f) | 3 | — |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Diseases of Plants (Plt. Path. 1f) | 4 | — |
| Local Flora (Bot. 3 s) | — | 2 |
| Farm Drainage (F. Mech. 107 s) | — | 2 |
| Electives | 1 | 3 |
| | 16 | 16 |

| *Senior Year* | | |
|---|---|---|
| †Landscape Design (Hort. 34f) | 3 | — |
| †Landscape Construction and Maintenance (Hort. 36 s) | — | 1 |
| †Civic Art (Hort. 37 s) | — | 2 |
| Horticultural Research and Thesis (Hort. 42y) | 2 | 2 |
| Horticultural Seminar (Hort. 43y) | 1 | 1 |
| Electives | 10 | 10 |
| | 16 | 16 |

## POULTRY HUSBANDRY

The course in Poultry Husbandry is designed to give the student a comprehensive view of the practices of poultry raising. Students who expect to become teachers, extension workers, or investigators should choose as electives such subjects as psychology, economic history, sociology, philosophy, and political science.

| *Junior Year* | *Semester* *I* | *II* |
|---|---|---|
| Poultry Production (Poultry 103 s) | — | 4 |
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| General Bacteriology (Bact. 1f) | 4 | — |
| Pathogenic Bacteriology (Bact. 2 s) | — | 4 |
| Genetics (Gen. 101f) | 3 | — |
| Poultry Keeping (Poultry 102f) | 4 | — |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Electives | 3 | 3 |
| | 16 | 16 |

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* Courses taken by both sophomores and juniors in alternate years.
† Courses taken by both juniors and seniors in alternate years.

| *Senior Year* | *Semester* *I* | *II* |
|---|---|---|
| Agricultural Economics (A. E. 2f) | 3 | — |
| Farm Management (F. M. 2f) | 4 | — |
| Farm Accounting (F. M. 1 s) | — | 3 |
| Animal Hygiene (Bact. 106 s) | — | 3 |
| Poultry Breeds (Poultry 104f) | 4 | — |
| Poultry Management (Poultry 105 s) | — | 4 |
| Marketing of Farm Products (A. E. 102 s) | — | 3 |
| Electives | 5 | 3 |
| | 16 | 16 |

### COMBINED PROGRAM IN AGRICULTURE AND VETERINARY MEDICINE

By arrangement with the Veterinary School of the University of Pennsylvania, students who wish to specialize in veterinary medicine may pursue a combined six-year program of study. The first three years of this program are taken at College Park. The last three years are taken at the Veterinary School of the University of Pennsylvania. After successful completion of the three years' work at the University of Maryland and the first year's work at the University of Pennsylvania, the student receives his B. S. degree from the University of Maryland. After successful completion of the last two years' work at the University of Pennsylvania he receives his degree in Veterinary Medicine from the Veterinary School.

## SPECIAL STUDENTS IN AGRICULTURE

Mature students who have fulfilled the regular college entrance requirements and are not candidates for degrees may, on consent of the dean, register as special students and pursue a program of studies not included in any regular curriculum, but arranged to meet the needs of the individual. All university fees for these special students are the same as fees for regular students.

There are many young farmers who desire to take short intensive courses in their special lines of work during slack times on the farm. Arrangements have been made to permit such persons to register at the office of the Dean of the College of Agriculture and receive cards granting them permission to visit classes and work in the laboratories of the different departments. This opportunity is created to aid florists, poultrymen, fruit-growers, gardeners, or other especially interested persons who are able to get away from their work at some time during the year.

In case such persons find it possible to remain in attendance for a full semester or for a full year, they may arrange to audit (that is, to attend regularly without credit) a full schedule of studies in the Agricultural College.

The regular charges are *$5.00 for registration and $1.00 per week for the time of attendance.

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* One registration is good for any amount of regular or intermittent attendance during a period of four years.

## WINTER SCHOOL IN AGRICULTURE, HOME ECONOMICS, AND RURAL LIFE

The Colleges of Agriculture and Home Economics have organized a Winter School. It meets the needs of persons beyond the usual high school age who wish to continue their education and at the same time continue their work at home with the least possible interruption.

The school is held at College Park in January and February, for a term of six weeks.

Persons who are not high school graduates, or who are graduates of high schools and are unable to take a four-year course in college leading to a degree, have in the Winter School an opportunity to acquire further training.

Those who desire additional information should write to the Director of the Winter School, College Park, Maryland.

## AGRICULTURAL EXPERIMENT STATION

HARRY J. PATTERSON, *Director*.

The agricultural work of the University naturally comprises three fields: research, instruction, and extension. The Agricultural Experiment Station is the agricultural research agency of the University, which has for its purpose the increase of knowledge relating to agriculture, primarily for the direct benefit of the farmer. It is also the real source of agricultural information for use in the classroom and for demonstrations in the field.

The Experiment Station work is supported by both State and Federal appropriations. The Hatch Act, passed by Congress in 1887, appropriates $15,000 annually; the Adams Act, passed in 1906, provides $15,000 annually; and the Purnell Act, passed in 1925, provides $60,000 annually. The State appropriation for 1935 was $54,660.

The objects, purposes, and work of the Experiment Station as set forth by these acts are as follows:

"That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories."

The Purnell Act also permits the appropriation to be used for conducting investigations and making experiments bearing on the manufacture, preparation, use, distribution, and marketing of agricultural products, and for such economic and sociological investigations as have for their purpose the development and improvement of the rural home and rural life.

The Maryland Station, in addition to the work conducted at the University, operates a sub-station farm of fifty acres at Ridgely, Caroline County, and a farm of about sixty acres at Upper Marlboro for tobacco investigation. Experiments in co-operation with farmers are conducted at many different points in the State. These tests consist of studies with soils, fertilizers, crops, orchards, insect and plant disease control, and stock feeding.

The results of the Experiment Station work during the past quarter of a century have developed a science of agriculture to teach, and have laid a substantial foundation for agricultural development. The placing of agricultural demonstrations and extension work on a national basis has been the direct outgrowth of the work of the Experiment Stations.

Students taking courses in agriculture are kept in close touch with the investigations in progress.

## EXTENSION SERVICE

T. B. Symons, *Director.*

The Extension Service is that branch of the University of Maryland, established by Federal and State law, which is designed to assist farmers and their families in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in co-operation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and a home demonstration agent. Through these agents and its staff of specialists, it comes into intimate contact with rural people and with the problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of the work undertaken by the Extension Service. Farmers are supplied with details of crop and livestock production, and with instructions for controlling diseases and insect pests; they are encouraged and aided in organized effort, helped with marketing problems, and in every way possible assisted in improving economic conditions on the farm.

This service is charged with carrying out in Maryland the program of the Agricultural Adjustment Administration.

Rural women are likewise assisted in the problems of the home. They are made acquainted with time- and labor-saving devices, with simpler and easier methods of work, with new knowledge of foods, with new ideas about home furnishing, with practical methods of home sewing and millinery construction, and with such other information as tends to make rural home life attractive and satisfying.

For rural boys and girls, the Extension Service provides a valuable type of instruction in agriculture and home economics through its 4-H Club work. Actual demonstrations conducted by the boys and girls themselves, under supervision of the county and home demonstration agents, are the best possible means of imparting to youthful minds valuable information in crop and livestock production and in the household arts. The 4-H Club work affords rural boys and girls a real opportunity to develop self-confidence, perseverance, and leadership.

The Extension Service works in accord with all other branches of the University of Maryland and with all agencies of the United States Department of Agriculture. It co-operates with all farm and community organizations in the State which have as their major object the improvement of agriculture and rural life; and it aids in every way possible in making effective the regulatory work and other measures instituted by the State Board of Agriculture.

The Extension Service is gradually developing activities in the general adult educational field.

# COLLEGE OF ARTS AND SCIENCES

T. H. TALIAFERRO, *Dean.*

The College of Arts and Sciences provides four years of liberal training in biological sciences, economics and business administration, history, languages and literature, mathematics, philosophy, physical sciences, political science, psychology, and sociology. It thus affords an opportunity to acquire a general education which shall serve as a foundation for success in whatever profession or vocation the student may choose. In particular it prepares the ground and lays the foundation for the learned professions of law, medicine, theology, and teaching, and even the more technical professions of engineering, public health service, and business administration. Through the aid which it furnishes other colleges of the University it aims to give the students of these colleges the outlook necessary for liberal culture and for public service.

This College is a development of the Division of Language and Literature of the Maryland State College, and later of the School of Liberal Arts of the University. In 1921 the School of Liberal Arts, the School of Chemistry, and other departments of physical and biological sciences were combined into the present College of Arts and Sciences, which thus became a standardized College of Arts and Sciences.

## Requirements for Admission

The requirements for admission to the College of Arts and Sciences are in general the same as those for admission to the other colleges and schools of the University. See Section I, "Entrance."

For admission to the pre-medical curriculum two years of any one foreign language in addition to the regularly prescribed units are required. A detailed statement of the requirements for admission to the School of Medicine and the relation of these to the pre-medical curriculum will be found under the heading School of Medicine.

## Departments

There are eleven university departments under the administrative control of the College of Arts and Sciences: Chemistry, Classical Languages, Economics and Sociology, English, History and Political Science, Mathematics, Modern Languages, Philosophy, Physics, Public Speaking, and Zoology. In addition to these, there are other departments, which, although they are under the control of other colleges of the University, furnish instruction for the College of Arts and Sciences. They are Bacteriology, Botany, Entomology, Geology, Military Science, Physical Education, and Psychology. Students in this college may also elect courses in the Colleges of Agriculture, Education, Engineering, and Home Economics as indicated on page 91.

## Degrees

The degrees conferred upon students who have met the prescribed conditions for degrees in the College of Arts and Sciences are Bachelor of Arts and Bachelor of Science.

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied all entrance requirements and has secured credit for a minimum of 127 credit hours, including six hours of basic military science for all able-bodied men students, six hours of physical education for all women students and such male students as are excused from military science, and one hour of library science for all students except those taking the special curricula and the combined courses in which there are other requirements.

Graduates of this college who have completed the regular course are awarded the degree of Bachelor of Arts, except that, upon request, any student who has met the requirements for that degree may be awarded the degree of Bachelor of Science, provided the major portion of the work has been done in the field of science and the application has the approval of the department in science in which the major work has been carried. Students who have elected the combined program of Arts and Medicine may be granted the degree of Bachelor of Arts or Bachelor of Science after the completion of at least three years of the work of this college and the first year of the School of Medicine. Those electing the combined five-year Academic and Nursing Course, for which the degree of Bachelor of Science may be awarded upon the completion of the full course, must take the Pre-Nursing curriculum at College Park before the Nursing Course in Baltimore. Those taking the combined course in Arts and Law may be awarded the Bachelor of Arts degree after the completion of three years of the work of this college and one year of full-time law courses, or its equivalent, in the School of Law.

In all of the combined programs the *last* thirty hours of courses in the Arts and Sciences *must* be completed in residence at College Park. Likewise, the *last* thirty hours of the regular course leading to a degree *must* be taken in College Park.

## Normal Load

The normal load for the freshman year is sixteen hours a week for the first semester, including one hour of library science and one hour of basic military science or physical education, and seventeen hours for the second semester. The sophomore load is seventeen hours per semester, two hours of which are military science or physical education.

The normal load for the junior and senior years is fifteen hours.

## Absolute Maximum

Students whose average grade for the *preceding year in this University* is a B or above may, with the approval of the Dean, be permitted to take additional hours for credit; *but in no case shall the absolute maximum of 19 hours per week be exceeded.* In the majority of cases it is better for the student to put in four full years in meeting the requirements for a degree than to try to cover the course in a shorter period by taking additional hours.

### Freshman-Sophomore Requirements

(a) Before the beginning of the junior year the student not taking a special curriculum must have completed sixty credit hours in basic subjects, and from three to five of these hours *must* be taken from each of six of the eight following groups:

#### GROUPS

| | |
|---|---|
| I. Biological Sciences | Botany<br>Zoology*<br>Bacteriology<br>Entomology |
| II. Classical Languages and Literatures | Latin<br>Greek |
| III. English Language and Literature | English<br>Comparative Literature<br>Public Speaking |
| IV. History and Social Sciences | Economics<br>History<br>Political Science<br>Sociology |
| V. Mathematics | Pure Mathematics<br>Applied Mathematics<br>Astronomy |
| VI. Modern Languages and Literatures | French<br>German<br>Spanish<br>Comparative Literature |
| VII. Philosophy, Psychology, and Education | |
| VIII. Physical Sciences | Chemistry<br>Geology<br>Physics |

(b) Not more than twenty of these hours may be taken in one department.

(c) Freshmen and sophomores may not carry more than twelve hours in one group at a time.

| *Freshman Program* | *Semester* *I* | *II* |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Foreign Language | 3 | 3 |
| Science (Biological or Physical) | 4 | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| State Government (Pol. Sci. 4 s) | — | 2 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Library Methods (L. S. 1 f) | 1 | — |
| Freshman Lectures | — | — |
| Elect one of the following: | | |
| Elements of Political Science (Pol. Sci. 1 y) | 3 | 3 |
| Introduction to the Social Sciences (Soc. Sci. 1 y) | | |
| Modern European History (H. 1y) | | |
| History of England and Greater Britain (H. 3 y) | | |
| Elements of Literature (Eng. 2 y) | | |
| *Mathematics (Math. 1 f and 2 s) | | |
| Total hours | 16 | 17 |

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* Prerequisite to Physics and necessary for students pursuing advanced courses in Chemistry. Math. 3 f and 4 s may be elected by students having the prerequisites.

### Sophomore Year

The curriculum of the sophomore year has been arranged on the basis of a wider election of courses than has heretofore prevailed, but the selection of these courses must be strictly within the limits set forth above under Freshman-Sophomore Requirements.

### Major and Minor Requirements

At the beginning of the junior year, each student must select a major in one of the fields indicated in (a), and before graduation must complete one major and one minor. Students following prescribed curricula are excepted. The courses constituting the major and the minor must be chosen under the supervision of the department in which the major work is done.

(a). Major and minor fields of study must be chosen from the following:

#### FIELD

Accounting and Finance
*Astronomy
Bacteriology
Botany
Chemistry
*Classical Languages
†Comparative Literature
Economics
English
Entomology
French
*Geology
German
History
Mathematics
†Philosophy, Psychology, and Education
Physics
Political Science
*Public Speaking
Sociology
Spanish
Zoology

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† Not available at present for major.
* Not available at present for major or minor.

(b). A major shall consist of not less than 12 nor more than 24 semester credit hours in one of the above fields of study. At least 8 of these hours must be in 100 courses.

(c). A minor shall consist of not less than 8 nor more than 18 semester credit hours in another field of study. At least 6 of these credit hours must be in 100 courses.

(d). Not more than 15 semester credit hours may be taken in a field of study other than the major or the minor.

(e). Courses to which (b), (c), and (d) refer must be taken only in the junior and senior years.

(f). The minimum number of semester credit hours that must be taken in the junior and senior years to complete a major or minor under (b) and (c) will be specified by the adviser after consultation with the student.

### Specific Requirements for Graduation

Before graduation the following specific requirements must be completed by all students except those pursuing certain prescribed curricula:

A. Military Science or Physical Education, six hours.

B. Library Science, one hour.

C. Group Requirements:

I. *English*—The required course in Composition and Rhetoric and two hours of Public Speaking. In addition at least a year of work must be taken in some form of advanced composition or in literature.

II. *Foreign Languages and Literature*—If a student enters the University with but two units of language or less he must pursue the study of foreign language until at least fourteen additional semester credits have been acquired. If three or more units of foreign language are offered for entrance the student must continue the study of foreign language until, at the discretion of the dean, six or eight additional semester credits have been satisfactorily completed. Students who offer two units of a foreign language for entrance, but whose preparation is not adequate for the second year of that language, receive only half credit for the first year's course.

III. *History and the Social Sciences*—At least twelve hours of history, economics, political science, or sociology. American History must be elected if it has not been taken in high school.

IV. *Mathematics and Natural Sciences*—A minimum requirement of twelve semester hours in this group, of which at least one year shall be devoted to a basic natural science.

V. *Education, Philosophy, and Psychology*—Six hours, with at least one course in Philosophy or Psychology.

### Completion of Specific Requirements

It is strongly recommended that students complete as much of the above specific prescribed work by the end of the sophomore year as can be taken without interfering with the general Freshman-Sophomore Requirements. All of the specific requirements for graduation must be met before a student may be admitted to full senior standing.

### Junior-Senior Requirements

The work in the junior and senior years is elective within the limits set by the Major and Minor Requirements and the completion of the Specific Requirements as outlined above.

### Students With Advanced Standing

Students entering the junior year of the College of Arts and Sciences with advanced standing from other accredited universities or from other colleges of this university will be required to meet the requirements respecting studies of the first two years only to the extent of their deficiencies in credits in Arts and Science subjects for full junior standing. Scholarship requirements as outlined in Section I of this catalogue will apply to all courses offered for advanced standing.

### Electives in Other Colleges and Schools

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in other colleges of the University.

The number of semester hours accepted from the various colleges is as follows:

College of Agriculture—Fifteen.*
College of Education—Twenty.
College of Engineering—Fifteen.
College of Home Economics—Twenty.
School of Law—Thirty in combined program.
School of Medicine—Thirty in combined program.
School of Nursing—Three years in combined program.

### Student Responsibility

*The individual student will be held responsible for the selection of the courses and the major in conformity with the preceding regulations. The student will also be held responsible for a knowledge of the general Academic Regulations.*

### Advisers

Each student may be assigned to a member of the faculty as his personal adviser, who will assist him in the selection of his courses, the arrangement of his schedule, and any other matters on which he may need assistance or advice. The faculty adviser acts in this capacity as assistant to and representative of the Dean, who is charged with the execution of all of the foregoing rules and regulations. The faculty adviser of juniors and seniors is the Head of the department from which the major field has been selected.

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* Students electing Botany, Bacteriology, or Entomology as the major field are not limited to fifteen hours.

## SPECIAL CURRICULA

Special curricula are provided in Chemistry and Business Administration, and for the Pre-Medical, Pre-Dental, and Pre-Law courses. They are also provided for the combined programs in Arts and Nursing and Arts and Law.

## CHEMISTRY

The Department of Chemistry includes the divisions of Inorganic, Organic, Analytical, Agricultural, Industrial, and Physical Chemistry, together with the State Control Work.

Courses in these several branches of the science are arranged with a view to the following:

(1) Contributing toward the liberal education of the Arts student;

(2) Laying the scientific foundation necessary for the professions of medicine, dentistry, pharmacy, engineering, agriculture, etc.;

(3) Offering training for the pursuit of chemistry as a career.

It should be noted that the chemical curricula hereinafter outlined are designed primarily to insure adequate instruction in the fundamentals of the science. At the same time it has been considered desirable to preserve as high a degree of flexibility as possible in order to afford the student who has a definite end in view an opportunity to fit his course to his actual needs. In general it may be said that the curricula offered prepare students to enter the following fields:

1. *Industrial Chemistry*—Curriculum II furnishes basic training, which, in conjunction with subsequent industrial experience or graduate work, should prepare the student to undertake plant control, plant management, or plant development work.

2. *Agricultural Chemistry*—Curriculum III may be adjusted, through the intelligent selection of electives, to fit the student for work in agricultural experiment stations, soil bureaus, geological surveys, food laboratories, industries engaged in the processing or handling of food products, and the fertilizer industries.

3. *General Chemistry*—Curriculum I offers a more liberal selection of subjects in the Sciences and Arts, and, through co-operation with the College of Education, may be supplemented with the work in Education necessary to obtain a State high-school teacher's certificate. To prepare for college teaching, graduate work leading to a higher degree is necessary.

4. *Chemical Research*—Preparation for research in chemistry is also based upon Curricula I, II, and III. It is advisable that elections be made largely from courses in chemistry and the allied sciences. Graduate work is essential. (See Graduate School).

5. *State Control Laboratory*—The State Control Laboratory is authorized to enforce the State Regulatory Statutes controlling the purity and truthful labeling of all feeds, fertilizers, and limes that are offered or exposed for sale in Maryland. The specific laws involved are the Feed Stuff Law of Maryland, in effect June 1, 1933; The Fertilizer Law of Maryland, in effect January 1, 1932; and the Lime Inspection Law of Maryland, in effect June 1, 1912.

### I. GENERAL CHEMISTRY

| *Freshman Year* | *Semester* *I* | *II* |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| Algebra and Plane Trigonometry (Math. 1f and 2 s) | 3 | 3 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| History (H. 1y, H. 2y, or H. 3y) | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y, or 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
|  | 17 | 17 |

| *Sophomore Year* |  |  |
|---|---|---|
| Qualitative Analysis (Chem. 2y) | 3 | 3 |
| Elementary Organic Chemistry (Chem. 8Ay and 8By) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| Calculus and Plane Analytic Geometry (Math. 5y) | 3 | 3 |
| Advanced Composition and Rhetoric (Eng. 3f and 4 s) | 2 | 2 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
|  | 17 | 17 |

| *Junior Year* |  |  |
|---|---|---|
| Quantitative Analysis (Chem. 6y) | 4 | 4 |
| Advanced Organic Chemistry (Chem. 116y and 117y) | 3 | 3 |
| General Physics (Phys. 1y) | 4 | 4 |
| Modern Language (French or German) | 1 | 1 |
| Electives (Arts or Education) | 3 | 3 |
|  | 15 | 15 |

| *Senior Year* | Semester I | II |
|---|---|---|
| Physical Chemistry (Chem. 102Ay and 102By) | 5 | 5 |
| Principles of Economics (Econ. 3y) | 3 | 3 |
| Advanced Organic Laboratory (Chem. 118y) | 1 | 1 |
| Electives (Arts or Education) | 6 | 6 |
| | 15 | 15 |

## II. INDUSTRIAL CHEMISTRY

| *Freshman Year* | | |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| Trigonometry; Adv. Algebra; Analytic Geometry (Math. 3f and 4 s) | 5 | 5 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
| | 17 | 17 |

| *Sophomore Year* | | |
|---|---|---|
| Calculus; Elem. Differential Equations (Math. 6y) | 5 | 5 |
| Qualitative Analysis (Chem. 2y) | 3 | 3 |
| Elementary Organic Chemistry (Chem. 8Ay and 8By) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| Advanced Composition and Rhetoric (Eng. 3f and 4 s) | 2 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| | 18 | 18 |

| *Junior Year* | | |
|---|---|---|
| Quantitative Analysis (Chem. 6y) | 4 | 4 |
| Advanced Organic Chemistry (Chem. 116y and 117y) | 3 | 3 |
| General Physics (Phys. 2y) | 5 | 5 |
| Modern Language (French or German) | 1 | 1 |
| Electives (Arts or Education) | 2 | 2 |
| | 15 | 15 |

| *Senior Year* | | |
|---|---|---|
| Physical Chemistry (Chem. 102Ay and 102By) | 5 | 5 |
| Industrial Chemistry (Chem. 110y) | 3 | 3 |
| Advanced Organic Laboratory (Chem. 118y) | 1 | 1 |
| Principles of Economics (Econ. 3y) | 3 | 3 |
| Electives (Arts or Education) | 3 | 3 |
| | 15 | 15 |

## III. AGRICULTURAL CHEMISTRY

| *Freshman Year* | Semester I | II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Algebra and Plane Trigonometry (Math. 1f and 2 s) | 3 | 3 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| General Zoology (Zool. 1f) | 4 | — |
| General Botany (Bot. 1 s) | — | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
| | 16 | 16 |

| *Sophomore Year* | | |
|---|---|---|
| Calculus and Plane Analytic Geometry (Math. 5y) | 3 | 3 |
| Elementary Organic Chemistry (Chem. 8Ay and 8By) | 3 | 3 |
| Qualitative Analysis (Chem. 2y) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| Elementary Plant Physiology (Plt. Phys. 1f) | 4 | — |
| General Bacteriology (Bact. 1 s) | — | 4 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| | 18 | 18 |

| *Junior Year* | | |
|---|---|---|
| General Physics (Phys. 1y) | 4 | 4 |
| Quantitative Analysis (Chem. 6y) | 4 | 4 |
| Advanced Organic Chemistry (Chem. 116y and 117y) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| Advanced Composition and Rhetoric (Eng. 3f and 4 s) | 2 | 2 |
| | 16 | 16 |

| *Senior Year* | | |
|---|---|---|
| Physical Chemistry (Chem. 102Ay and 102By) | 5 | 5 |
| Advanced Organic Laboratory (Chem. 118y) | 1 | 1 |
| Modern Language (French or German) | 1 | 1 |
| General Physiological Chemistry (Chem. 108 s) | — | 4 |
| Fundamentals of Economics (Econ. 5f) | 3 | — |
| Electives | 5 | 4 |
| | 15 | 15 |

## BUSINESS ADMINISTRATION

The aim of this curriculum is to afford those who select business as a career a training in the general principles of business. The work is based on the view that through a study of the best business methods valuable mental discipline and knowledge of business technic may be obtained. Business demands men who are broadly trained, and not men narrowly drilled in routine. Hence two years of liberal college training are desirable for students intending to enter business. The curriculum provides for this cultural background as well as for the special training in business subjects.

| *Freshman Year* | *Semester* *I* | *II* |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Modern Language | 3 | 3 |
| Science (Chemistry, Zoology, or Botany) | 4 | 4 |
| Introduction to the Social Sciences (Soc. Sci. 1y) | 3 | 3 |
| Algebra and Plane Trigonometry (Math. 1f and 2 s) | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
| | 17 | 17 |

| *Sophomore Year* | | |
|---|---|---|
| American History (H. 2y) | 3 | 3 |
| Economic Geography and Industry (Econ. 1f) | 3 | — |
| History of World Commerce (Econ. 2 s) | — | 3 |
| Principles of Economics (Econ. 3y) | 3 | 3 |
| Business English (Eng. 17f and 18 s) | 2 | 2 |
| Business Organization and Operation (Econ. 7f) | 3 | — |
| Elements of Psychology (Psych. 1 s) | — | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| | 17 | 17 |

| *Junior Year* | | |
|---|---|---|
| *Principles of Accounting (Econ. 109y) | 3 | 3 |
| Business Law (Econ. 107f and 108 s) | 3 | 3 |
| Money and Credit (Econ. 101f) | 2 | — |
| Banking (Econ. 102 s) | — | 2 |
| Mathematical Theory of Investment (Math. 101f) | 3 | — |
| Elements of Statistics (Gen. 114 s or Math. 102 s) | — | 3 |
| Modern Language | 1 | 1 |
| *Electives | 3 | 3 |
| | 15 | 15 |

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* Students who wish to specialize in accounting will be permitted, with the consent of the instructor, to take this course in their sophomore year.

| *Senior Year* | *Semester* *I* | *II* |
|---|---|---|
| Corporation Finance (Econ. 103f) | 2 | — |
| Investments (Econ. 104 s) | — | 3 |
| Insurance (Econ. 105f) | 2 | — |
| Public Utilities (Econ. 113f) | 2 | — |
| Public Finance (Econ. 114 s) | — | 3 |
| *Electives | 9 | 9 |
| | 15 | 15 |

## THE PRE-MEDICAL CURRICULUM

The minimum requirement for admission to the School of Medicine of the University of Maryland is 60 semester hours of prescribed courses, exclusive of military drill or physical education. The subjects and hours prescribed by the Council on Medical Education of the American Medical Association are covered in the first two years of the Pre-Medical Curriculum. In view of the fact, however, that at least five times as many students, most of whom have a baccalaureate degree, apply for admission to the School of Medicine of the University as can be accommodated, students are strongly urged to complete the full three-year curriculum before making application for entrance.

Preference will be given students requesting entrance to the School of Medicine of the University who present the credits obtained by the successful completion of the three-year curriculum or its equivalent of 97 semester hours. For recommendation by the Pre-Medical Committee a student must complete the curriculum with an average grade of B or above, and must also satisfy the Committee that he is qualified by character and scholarship to enter the medical profession. Only in exceptional cases will students who have been less than two years in residence at College Park be recommended for admission to the School of Medicine.

Another advantage the three-year curriculum offers over the minimum requirement of sixty-seven hours is that the students successfully completing this program may, on the recommendation of the Dean of the School of Medicine, be awarded the the degree of Bachelor of Science after the completion of the first year's work in the Medical School. This combined program of seven years leads to the degree of Doctor of Medicine upon the completion of the full course. The first three years are taken in residence at College Park, and the last four in Baltimore in the School of Medicine. At least two years of residence at College Park is necessary for students transferring from other colleges and universities who wish to become candidates for the combined degrees.

For requirements for admission see Section I, "Entrance."

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* Electives must be chosen first to fulfill the Specific Requirements for Graduation; then from approved courses in the Colleges of Arts and Sciences, Engineering, Education, and Agriculture. In the senior year at least two hours in each semester must be elected in Economics.

| *Freshman Year* | Semester I | II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Algebra and Plane Trigonometry (Math. 1f and 2 s) | 3 | 3 |
| General Zoology (Zool. 1f) | 4 | — |
| Comparative Vertebrate Morphology (Zool. 2s) | — | 4 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Library Methods (L. S. 1 s) | — | 1 |
| Freshman Lectures | — | — |
| | 16 | 17 |

| *Sophomore Year* | I | II |
|---|---|---|
| General Physics (Phys. 1y) | 4 | 4 |
| Elementary Organic Chemistry (Chem. 8Ay and 8By) | 3 | 3 |
| Modern Language (French or German) | 3 | 3 |
| The Invertebrates (Zool. 5f) | 3 | — |
| Elements of Psychology (Psych. 1 s) | — | 3 |
| Advanced Composition and Rhetoric (Eng. 3f and 4 s) | 2 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| | 17 | 17 |

| *Junior Year* | I | II |
|---|---|---|
| Rural Sociology (Soc. 101f) | 2 | — |
| Urban Sociology (Soc. 102s) | — | 2 |
| Elementary Physical Chemistry (Chem. 10y) | 3 | 3 |
| General Bacteriology (Bact. 1f) or Quantitative Analysis (Chem. 4f) | 4 | — |
| Embryology (Zool. 101s) or General Physiological Chemistry (Chem. 108s) | — | 4 |
| Electives | 6 | 6 |
| | 15 | 15 |

*Senior Year*

The curriculum of the first year of the School of Medicine. The students also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences, provided the Specific Requirements for Graduation have been met.

## PRE-DENTAL CURRICULUM

Students taking one year of work in the College of Arts and Sciences may be admitted to the second year of the five-year course of the School of Dentistry, provided the following program of studies has been followed:

| *Freshman Year* | Semester I | II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| General Zoology (Zool. 1f) | 4 | — |
| Comparative Vertebrate Morphology (Zool. 2s) | — | 4 |
| Algebra and Plane Trigonometry (Math. 1f and 2 s) | 3 | 3 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Library Methods (L. S. 1 s) | — | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
| | 16 | 17 |

If a second year of pre-dental education be completed in the College of Arts and Sciences, it should include the following courses: General Physics (Phys. 1y) and Elementary Organic Chemistry (Chem. 8Ay and 8By). The remainder of the program will be made up of approved electives.

## FIVE-YEAR COMBINED ARTS AND NURSING CURRICULUM

The first two years of this course are taken in the College of Arts and Sciences at College Park. If students enter this combined program with advanced standing, at least the second full year of the course must be completed in College Park. This course is prerequisite, and cannot be taken after the Diploma in Nursing is granted.

The remaining three years are taken in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, Baltimore. In addition to the Diploma in Nursing the degree of Bachelor of Science may, upon the recommendation of the Director of the School of Nursing, be granted at the end of the five-year course. Full details regarding this course may be found in the section of the catalogue dealing with the School of Nursing.

| *Freshman Year* | Semester I | II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Foreign Language | 3 | 3 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| American History (H. 2y) | 3 | 3 |
| State Government (Pol. Sci. 4s) | — | 2 |
| Library Methods (L. S. 1f) | 1 | — |
| Physical Education (Phys. Ed. 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
| | 16 | 17 |

| *Sophomore Year* | *Semester* I | II |
|---|---|---|
| Advanced Composition and Rhetoric (Eng. 3f and 4s) | 2 | 2 |
| Principles of Sociology (Soc. 1f) | 3 | — |
| Elements of Psychology (Psych. 1s) | — | 3 |
| Fundamentals of Economics (Econ. 5s) | — | 3 |
| Elements of Organic Chemistry (Chem. 12s) | — | 3 |
| General Zoology (Zool. 1f) | 4 | — |
| Foods (H. E. 31y) | 3 | 3 |
| Nutrition (H. E. 131f) | 3 | — |
| Child Nutrition (H. E. 136s) | — | 1 |
| Physical Education (Phys. Ed. 6y and 8y) | 2 | 2 |
| | 17 | 17 |

## COMBINED PROGRAM IN ARTS AND LAW

The Law School of the University requires two years of academic credit for admission to the school, or sixty-seven semester hours of college credit.

The University offers a combined program in Arts and Law, leading to the degrees of Bachelor of Arts and Bachelor of Laws. Students pursuing this combined program will spend the first three years in the College of Arts and Sciences at College Park. During this period they will complete the prescribed curriculum in pre-legal studies as outlined below, and must complete the Specific Requirements for Graduation as indicated elsewhere. If students enter the combined program with advanced standing, at least the third full year's work must be completed in residence at College Park. Upon the successful completion of one year of full-time law courses in the School of Law in Baltimore, the degree of Bachelor of Arts may be awarded on the recommendation of the Dean of the School of Law. The degree of Bachelor of Laws wili be awarded upon the completion of the combined program.

| *Freshman Year* | *Semester* I | II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Science or Mathematics | 4–3 | 4–3 |
| History of England and Greater Britain (H. 3y) | 3 | 3 |
| Introduction to the Social Sciences (Soc. Sci. 1y) | 3 | 3 |
| Foreign Language | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Freshman Lectures | — | — |
| | 16–17 | 16–17 |

| *Sophomore Year* | *Semester* I | II |
|---|---|---|
| Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| Principles of Economics (Econ. 3y) | 3 | 3 |
| American History (H. 2y) | 3 | 3 |
| Government of the United States (Pol. Sci. 2f) | 3 | — |
| Elements of Psychology (Psych. 1 s) | — | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| *Electives | 3 | 3 |
| | 17 | 17 |

### *Junior Year*

Largely electives, including the completion of the Specific Requirements for Graduation as outlined on page 90.

### *Senior Year*

First year of regular law course.

Students who are unable to take the combined program in Arts and Law may fulfill the entrance requirements of the Law School by completing the first two years of pre-legal studies as outlined in the above combined course.

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* Electives should be in English, History, Latin or Modern Languages, Economics or Political Science, or some of the Specific Requirements for Graduation.

# MISCELLANEOUS

## LIBRARY SCIENCE

A course in Library Methods is required of students registered in the College of Arts and Sciences.

This course is intended to help students use the library with greater facility. Instruction will be given by practical work with the various catalogues, indexes, and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much used reference books, which the student will find helpful throughout the college course.

## MUSIC

The Department of Music serves students of the University of two general classes: those who make a specialty of the subject with a view to becoming musical artists or music teachers, and those who pursue musical studies for purposes of enjoyment and general culture. For the former group extensive private instruction is provided, with attention to technical development along particular lines; while as large provision as possible is made for all in the various club activities and in public lectures and recitals.

For courses in music see Section III, Courses of Instruction.

### Voice

Courses in voice culture, covering a thorough and comprehensive study of tone production, are offered. These are based on the Italian method of singing.

The work required to develop a singer is begun with the most fundamental principles of correct breathing. Scale and arpeggio exercises; all intervals; the portamento, legato, and staccato; the trill; and other embellishments to develop the technique of singing are, through the medium of vocal exercises arranged by the greatest authorities on the voice, studied under the careful supervision of the instructor.

The study of songs and ballads is adapted to the ability and requirements of each singer, a thorough training in diction and phrasing being given through the medium of sacred and secular ballads. Such work may be followed by a study of the oratorio and the opera. Opportunities are afforded all voice pupils who are capable to make public appearances in the regular pupils' recitals as well as in the churches of the community.

### Tuition

One lesson per week, term of eighteen weeks, $24.

The above price for lessons in Voice is offered to students of the University who are pursuing regular academic courses. Terms for private instruction outside the University may be secured from the instructor in Voice.

### Piano

Elementary piano courses. Work for beginners, based on the Leschetizky method.

Advanced piano courses. The college work in piano presupposes three years of preparatory study of the piano, part or all of which may be taken at the University.

Lessons are taken twice a week. A four-year college course is as follows:

First Year—Technical studies based on the modern weight and rotary method: Heller Etudes; Sonatas of Haydn, Mozart, and Beethoven; selections from classic and modern composers.

Second Year — Bach Preludes; Concertos by classic masters; Jensen Etudes; selections from classic, romantic, and modern composers.

Third Year—Leschetizky technique; Chopin Preludes and Waltzes; Bach Inventions; Mendelssohn Concertos; Beethoven Sonatas; selections from romantic and modern composers.

Fourth Year—Leschetizky technique; Chopin Etudes; Bach Well-Tempered Clavichord; Sonatas and Concertos by Grieg, McDowell, Schutt, Beethoven, etc.; concert pieces by modern and romantic composers.

### Tuition

One lesson per week, term of eighteen weeks, $24.

Note.—Music tuitions are due in advance. Ten per cent. is added to all tuitions not paid in advance.

# COLLEGE OF EDUCATION

WILLARD S. SMALL, *Dean.*

The College of Education is organized to meet the needs of the following classes of students: (1) undergraduates preparing to teach the cultural and the vocational studies in the high schools; (2) advanced students preparing to become high school principals, elementary school principals, educational supervisors, attendance officers, and school administrators; (3) those preparing for educational work in the trades and industries; (4) county agents, home demonstrators, boys' and girls' club leaders, other extension workers, and social workers; (5) students whose major interest is in other fields, but who desire courses in education for their informational and cultural values.

The Summer Session, although organically distinct from the College of Education, is administered by the Dean of the College of Education, and is in effect an administrative division of the College.

## Departments

The instructional work of the College of Education is conducted by the following functional divisions: History and Principles of Education, Educational Psychology, Methods in High School Subjects, Agricultural Education, Home Economics Education, Industrial Education, Commercial Education, and Physical Education.

## Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the other colleges of the University. See Section I, "Entrance."

For additional requirements for admission to the curriculum in Agricultural Education, see page 111.

Candidates for admission whose high school records are consistently low are strongly advised not to seek admission to the College of Education.

## Admission of Normal School Graduates

Graduates of the two- and three-year curriculums of the Maryland Normal Schools and other accredited normal schools whose scholastic records in the respective normal schools were satisfactory, will be admitted to advanced standing and classified provisionally in the appropriate classes. Graduates of the two-year normal school curriculum, in most cases, may satisfy the requirements for the degree of Bachelor of Science in Elementary Education by attendance for two full college years; graduates of the three-year curriculum, by attendance for one full college year.

Those who wish to satisfy the requirements for certification as high school teachers need more time. The amount of time required is not uniform, but depends upon the high school subjects to be taught and the individual ability of the student.

For detailed information, one should apply to the Dean of the College of Education.

## Night Courses for Teachers

A program of Night Courses for Teachers is offered at College Park. For fees for such courses, see "Fees for Part-time Students," page 52. A special circular describing this program is issued in September, and may be had by applying to the Registrar, College Park, Maryland.

## Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are Bachelor of Arts and Bachelor of Science. Upon completion of 128 credits in conformity with the requirements specified under "curricula" and in conformity with general requirements of the University, the appropriate degree will be conferred.

## Teachers' Special Diploma

The degrees granted for work done in the College of Education indicate primarily the quantity of work completed. The teachers' special diploma certifies to the professional character of such work. Teachers' special diplomas will be granted only to those who attain a grade of C or better in supervised teaching, and whose professional interest, personal qualities, and character give promise of success in teaching.

Teachers' special diplomas are granted in the Biological Sciences, Chemistry, English, French, General High School Science, History and Social Sciences, Mathematics, Mathematics-Physics, Vocational Agriculture, Vocational Home Economics, Industrial Education, Commercial Education, and Physical Education.

## Facilities

In addition to the general facilities offered by the University, certain important supplementary facilities are available.

**Supervised Teaching.** Actual experience in teaching under competent supervision is of basic importance in the preparation of teachers. Since 1920 a co-operative arrangement with the Prince George's County School authorities has been in effect whereby students preparing to teach get this experience in the Hyattsville High School. This arrangement is supplemented by opportunities for supervised teaching in the high schools of Montgomery County and Howard County and in the junior and senior high schools of the District of Columbia.

**Observation.** The observation of teaching necessary for efficient teacher training is conducted in Washington and in nearby Maryland schools. The number, variety, and nearness of these schools provide ample and unusual opportunities for observation of actual classroom situations.

**Other Facilities in Washington.** The Library of Congress, the Library of the U. S. Office of Education, and the special libraries of other Government offices are accessible. The information services of the National Education Association, the American Council of Education, the U. S. Office of Education, and of other institutions, public and private, are available to students.

### Curricula

The departments of the College of Education fall into two main groups: General Education and Vocational Education. Two types of curricula are offered, corresponding with these two major groupings.

**General Education.** The first of these is designed to prepare teachers of academic and scientific subjects and the special subjects in high schools. The basic requirements are fixed and definite, but the student may select from a number of subjects the major and minor subjects in which he expects to qualify for teaching. One may qualify for the degree either of Bachelor of Arts or of Bachelor of Science, depending upon one's election of major subject.

The requirements for majors and minors (see Specific Requirements, page 90) satisfy the regulations of the State Department of Education in regard to "the number of college credits required in any two or more subjects which are to be placed on a high school teachers' certificate."

Some of the most common combinations of academic subjects in the high schools of the State are: English and History; English and French; History and French; Mathematics and one or more of the high school Sciences.

Combinations of academic and scientific subjects with Physical Education, Home Economics, Industrial Arts, Commercial Subjects, and Music are desirable.

**Vocational Education.** The curricula in Vocational Education are designed for the definite purpose of preparing teachers of agriculture, home economics, and trade and industrial Education. As the University of Maryland is the institution designated by the State Board of Education for the training of teachers of vocational agriculture, home economics, and trades and industries under the provisions of the Smith-Hughes Vocational Educational Act, the curricula in this class have been organized to meet the objectives set up in the act and in the interpretations of the Federal Board of Vocational Education and the State Board of Education. These curricula lead to the degree of Bachelor of Science.

### Professional Requirements

The first two years of college work are preparatory to the professional work of the junior and senior years. Students who, in the first two years by reason of temperament, health, industry, and scholastic progress, give promise of becoming successful teachers are encouraged to continue in the curricula of the College of Education; those who, by reason of health deficiencies, of weakness in oral and written English, and of unfavorable personal traits, are unlikely to succeed as teachers are advised to transfer to other fields.

### Sophomore Status

The course "Introduction to Teaching" scheduled for the sophomore year is an orientation course. It is designed with the twofold purpose of giving students a view of the teacher's job and of testing the aptitude and fitness of students for teaching. Admission to this course is based upon (1) completion of at least 30 semester hours of freshman work with a standing in the upper four-fifths of the class; and (2) passing of series of tests which are designed to determine the student's preparation for the special demands of this course.

### Professional Courses

The professional courses recognized by the State Department of Education for certification are given only in the junior and senior years. The minimum requirement for these is 16 semester hours, and includes the following: Educational Psychology, Technic of Teaching, Observation of Teaching, Special Methods and Supervised Teaching, and Principles of Secondary Education. *To be eligible to enter the professional courses in the junior year, a student must rank academically in the upper four-fifths of the class at the end of the sophomore year. Continuance in such courses will be contingent upon the student's remaining in the upper four-fifths of his class in subsequent semester revisions of class standing.*

The requirement of the District of Columbia of 24 semester hours of professional courses is fully met.

The special requirements of each curriculum are shown in the tabular statements of the curricula for Arts and Science Education, Agricultural Education, Home Economics Education, Physical Education, Commercial Education, and Industrial Education.

### Certification of High School Teachers

The State Department of Education certifies to teach in the approved high schools of the State only graduates of approved colleges who have satisfactorily fulfilled subject-matter and professional requirements. Specifically it limits certification to graduates who "rank academically in the upper four-fifths of the class and who make a grade of C or better in practice teaching."

### Guidance in Registration

All students wishing to prepare for teaching should consult the Dean of the College of Education regarding possible combinations and the arrangement of their work. At the time of matriculation each student should make a provisional choice of the subjects which he will prepare to teach and secure the advice and approval of the heads of departments which offer these subjects. Definite choice should be made at the beginning of the sophomore year. The advice and approval of the appropriate head of department should be secured.

It is advisable for students who purpose to teach to register in the College of Education, in order that they may have continuously the counsel and guidance of the faculty which is directly responsible for their professional preparation. Such guidance is provided by regular monthly conferences of faculty and students and by group and individual conferences. It is permissible, however, for a student to register in that college which in conjunction with the College of Education offers the majority of the courses he will pursue in satisfying the requirements of the curriculum he elects.

The teachers' special diploma will be awarded only to the student who shall have fulfilled all of the requirements of the curriculum he elects. Students in other colleges desiring to qualify for the teachers' special diploma should consult with the Dean of the College of Education *at the beginning of the sophomore year* in order to plan satisfactorily their subsequent programs. Adjustments may be made as late as the beginning of the junior year. *It is practically impossible to make adjustments later than that on account of the sequence of professional subjects in the junior and senior years.*

## ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register either in the College of Education or the College of Arts and Sciences. In either case they will register with the College of Education for the teachers' special diploma, which will be awarded only to students who have fulfilled all the requirements of this curriculum.

### General Requirements

In addition to Military Science or Physical Education, required of all students in the University, the following requirements must be fulfilled by all candidates for degrees in this curriculum, preferably by the end of the sophomore year:

(1) Composition and Rhetoric (Eng. 1y), 6 semester hours, and in addition not less than a year of work in English Language or Literature.

(2) Reading and Speaking (P. S. 1y), 2 semester hours.

(3) Two years of foreign language, if the student enters with less than three years of foreign language; one year, if he enters with three years. No foreign language is required of students who enter with four or more years of foreign language.

(4) Twelve semester hours of history and the social sciences, of which six must be history.

(5) Twelve hours of natural science or of natural science and mathematics, including General Zoology (Zool. 1 f or s).

| | *Semester* | |
|---|---|---|
| | *I* | *II* |
| *Freshman Year* | | |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| *Foreign Language | 3 | 3 |
| Science (Biological or Physical) | 4 | 4 |
| From the following groups: History, Mathematics, Science, Foreign Language | 3–4 | 3–4 |
| | — | — |
| | 15–16 | 15–16 |
| *Sophomore Year* | | |
| (See Sophomore Status, p. 107) | | |
| Introduction to Teaching (Ed. 2f and 3s) | 2 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| †Foreign Language | 3 | 3 |
| Electives | 10–11 | 10–11 |
| | — | — |
| | 17–18 | 17–18 |
| *Junior Year* | | |
| (See Professional Courses, p. 107) | | |
| Educational Psychology (Ed. 4f) | 3 | — |
| Technic of Teaching (Ed. 5 s) | — | 2 |
| Special Methods (Ed. 120 s; 122 s; 124 s; 126 s; 128 s) | — | 2 |
| Electives | 13 | 12 |
| | — | — |
| | 16 | 16 |
| *Senior Year* | | |
| Observation of Teaching (Ed. 6f) | 1–2 | — |
| Supervised Teaching (Ed. 121; 123; 125; 127; 129 f or s) | 2 | 2 |
| Principles of Secondary Education (Ed. 103 s) | — | 3 |
| Electives | 12–11 | 10 |
| | — | — |
| | 15 | 15 |

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* Except students entering with four or more units of language.
† For students entering with less than three units of language.

### Special Requirements

Each student is expected to prepare for the teaching of at least two high school subjects in accordance with the certification requirements of the State Department of Education (By-law 30 revised). These are designated as major and minor subjects, with a requirement of from 30 to 36 semester hours of credit for a major and from 20 to 24 hours for a minor. If it is deemed advisable for a student to prepare for the teaching of three high school subjects, the requirement for a major may be modified at the discretion of the Dean to permit the pursuit of three subjects to the extent required for State certification. Semester hour requirements are detailed below.

*No student who has not met all previous requirements will be permitted to do practice teaching.*

*English.* For a major in English 36 semester hours are required as follows:

| | |
|---|---|
| Composition and Rhetoric | 6 semester hours |
| Advanced Composition and Rhetoric | 4 semester hours |
| Reading and Speaking | 2 semester hours |
| Literature | 18 semester hours |
| Electives | 6 semester hours |
| Total | 36 |

For a minor in English 24 semester hours are required:

| | |
|---|---|
| Composition and Rhetoric | 6 semester hours |
| Advanced Composition and Rhetoric | 4 semester hours |
| Reading and Speaking | 2 semester hours |
| Literature | 12 semester hours |
| Total | 24 |

Students with a major or minor in English must complete Composition and Rhetoric, Reading and Speaking, Advanced Composition and Rhetoric, and History of English Literature by the end of the junior year.

Additional courses required in the major group are The Drama or Shakespeare and 6 hours from the following: The Novel, English and American Essays, Modern Poets, Victorian Poets, Poetry of Romantic Age, American Literature, and Comparative Literature. (The electives for the minor in English must be from this group.)

*History and Social Sciences.* For a major in this group 30 semester hours are required as follows:

| | |
|---|---|
| History | 18 semester hours |
| Economics or Sociology | 6 semester hours |
| Electives | 6 semester hours |

For a minor, the same requirements less the electives.

Students with a major or minor in History and Social Sciences must complete Modern European History and American History by the end of the junior year.

*Modern Languages.* French is the only modern language for which supervised teaching is available. For a major in Modern Languages 30 semester hours are required; for a minor 24 semester hours.

At least 18 hours of a major or minor in modern language must be completed by the end of the junior year.

A major or minor in French must include French 8y, French 9y, and at least one course of the 100 group.

A major or minor in Spanish must include Spanish 6y, and at least one course of the 100 group.

A major or minor in German must include German 4f and 5s or German 6f and 7s, and at least one course of the 100 group.

*Mathematics.* Open to students who enter with solid geometry and algebra beyond quadratics. Twenty semester hours including Math. 3f, Math. 4s, and Math. 6y must be completed by the end of the junior year. Additional courses totaling 10 semester hours will be chosen from those listed in Section III for advanced undergraduates and graduates. The requirements for a minor are satisfied by the 20 hours listed above; or by 20 hours of the mathematics listed in Sequence 1 of the Mathematics-Physics major.

*Mathematics-Physics.* This major consists of 18 hours in mathematics and 18 hours in physics. Two sequences of courses are available. Sequence 1: Math. 1f, Math. 2s, Math. 7s, Math. 5y; Phys. 1y, Phys. 105y; elected mathematics and elected physics. Sequence 2: Math. 3f, Math. 4s, Math. 6y; Phys. 2y, Phys. 103f, Phys. 104s; elected physics.

Chemistry 1y is required as a supporting course to this major.

If a minor in general science is offered in connection with this major, a total of 38 hours in natural science must be presented.

*Science.* In science a major and a minor are offered consisting of 34 and 28 hours respectively, each including elementary courses in chemistry, physics, and biology (zoology and botany). Minors of twenty semester hours are offered in chemistry, physics, and biological science. A minor in biology must include the basic courses in botany and zoology.

A minor in chemistry must be supported by the elementary course in physics. Minors in physics and biology must be supported by the elementary course in chemistry, which should be completed before the beginning of the junior year.

If a major in general science is accompanied by a minor in chemistry, physics, or biology, the same credits may be counted towards both, provided that they number not less than 52 semester hours in natural science.

## AGRICULTURAL EDUCATION

The objectives of the curricula in Agricultural Education are the teaching of secondary vocational agriculture, the work of county agents, and allied lines of the rural education service.

Curriculum A is designed for persons who have had no vocational agriculture in high school or less than two years of such instruction. Curriculum B is designed for persons who have had two or more years of thoroughgoing instruction in secondary agriculture of the type offered in Maryland high schools. Curriculum B relieves the student of the necessity of pursuing beginning agriculture courses in the first two years of his college course, permits him to carry general courses in lieu of those displaced by his vocational program in high school, and offers him an opportunity to lay a broad foundation for the advanced work in agriculture of the last two college years.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curricula must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

Students with high averages upon petition may be relieved of certain requirements in these curricula, when evidence is presented showing that either through experience or through previous training the prescription is non-essential; or they may be allowed to carry an additional load.

Students electing these curricula may register either in the College of Education or in the College of Agriculture. In either case they will register with the College of Education for the teachers' special diploma, which will be awarded to students who shall have fulfilled all the requirements of the chosen curriculum.

### Curriculum A.

| | Semester | |
|---|---|---|
| *Freshman Year* | *I* | *II* |
| General Animal Husbandry (A. H. 1f) | 3 | — |
| Principles of Vegetable Culture (Hort. 11 s) | — | 3 |
| General Chemistry (Chem. 1Ay or 1By) | 4 | 4 |
| General Botany (Bot. 1f) | 4 | — |
| General Zoology (Zool. 1 s) | — | 4 |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y) | 1 | 1 |
| | 15 | 15 |

| *Sophomore Year* | | |
|---|---|---|
| Diseases of Plants (Plt. Path. 1f) | 3 | — |
| Introductory Entomology (Ent. 1 s) | — | 3 |
| Cereal Crop and Forage Crop Production (Agron. 1f and 2 s) | 3 | 3 |
| Geology (Geol. 1f) | 3 | — |
| Soils and Fertilizers (Soils 1 s) | — | 3 |
| Feeds and Feeding (A. H. 101f) | 3 | — |
| Farm Dairying (D. H. 1 s) | — | 3 |
| Elementary Pomology (Hort. 1f) | 3 | — |
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| | 17 | 17 |

| | Semester | |
|---|---|---|
| *Junior Year* | *I* | *II* |
| Educational Psychology (Ed. Psych. 1f) | 3 | — |
| Farm Practicums and Demonstrations (R. Ed. 101f and 102 s) | 1 | 1 |
| Special Advanced Speaking (P. S. 15f and 16 s) | 2 | 2 |
| Engineering Drafting (Dr. 1y) | 1 | — |
| Farm Machinery (F. Mech. 101f) | 3 | — |
| Gas Engines, Tractors, and Automobiles (F. Mech. 102 s) | — | 3 |
| Farm Poultry (Poultry 1 s) | — | 3 |
| Genetics (Gen. 101f) | 3 | — |
| Methods of Crop and Soil Investigations (Agron. 121 s) | — | 2 |
| Agricultural Economics (A. E. 2f) | 3 | — |
| Rural Life and Education (R. Ed. 104 s) | — | 3 |
| Electives | — | 3 |
| | 16 | 17 |

| *Senior Year* | | |
|---|---|---|
| Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107f) | 3 | — |
| Project Organization and Cost Accounting (R. Ed. 105f) | 2 | — |
| Teaching Secondary Vocational Agriculture (R. Ed. 109f) | 3 | — |
| Departmental Organization and Administration (R. Ed. 112 s) | — | 2 |
| Practice Teaching (R. Ed. 120f or s) | — | 2 |
| Farm Shop Work (F. Mech. 104f) | 1 | — |
| Teaching Farm Shop in Secondary Schools (R. Ed. 114 s) | — | 1 |
| Principles of Secondary Education (Ed. 103 s) | — | 3 |
| Marketing of Farm Products (A. E. 102 s) | — | 3 |
| The Novel (Eng. 122f and 123 s) or Expository Writing (Eng. 5f and 6 s) | 2 | 2 |
| General Floriculture (Hort. 21f) | 2 | — |
| General Landscape Gardening (Hort. 31 s) | — | 2 |
| Farm Organization and Operation (A. E. 108f) | 3 | — |
| | 16 | 15 |

### Curriculum B.

| *Freshman Year* | | |
|---|---|---|
| General Chemistry (Chem. 1Ay or 1By) | 4 | 4 |
| General Botany (Bot. 1f) | 4 | — |
| General Zoology (Zool. 1 s) | — | 4 |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Physics | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys Ed. 1y) | 1 | 1 |
| | 15 | 15 |

| *Sophomore Year* | Semester I | Semester II |
|---|---|---|
| Diseases of Plants (Plt. Path. 1f) | 3 | — |
| General Entomology (Ent. 1 s) | — | 3 |
| Elements of Organic Chemistry (Chem. 12f) | 3 | — |
| General Bacteriology (Bact. 1 A s) | — | 2 |
| Geology (Geol. 1f) | 3 | — |
| Soils and Fertilizers (Soils 1 s) | — | 3 |
| Principles of Economics (Econ. 3y) | 3 | 3 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Electives | 1 | 2 |
| | 15 | 15 |

| *Junior Year* | I | II |
|---|---|---|
| Educational Psychology (Ed. Psych. 1f) | 3 | — |
| Farm Practicums and Demonstrations (R. Ed. 101f and 102 s) | 1 | 1 |
| Special Advanced Speaking (P. S. 15f and 16 s) | 2 | 2 |
| Engineering Drafting (Dr. 1y) | 1 | — |
| Rural Life and Education (R. Ed. 104 s) | — | 3 |
| Electives | 10 | 11 |
| | 17 | 17 |

| *Senior Year* | I | II |
|---|---|---|
| Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107f) | 3 | — |
| Project Organization and Cost Accounting (R. Ed. 105 f) | 2 | — |
| Departmental Organization and Administration (R. Ed. 112 s) | — | 2 |
| Teaching Secondary Vocational Agriculture (R. Ed. 109f) | 3 | — |
| Farm Shop Work (F. Mech. 104f) | 1 | — |
| Teaching Farm Shop in Secondary Schools (R. Ed. 114 s) | — | 1 |
| Practice Teaching (R. Ed. 120f or s) | — | 2 |
| Electives | 8 | 12 |
| | 17 | 17 |

Electives to be as follows:

| | |
|---|---|
| Advanced Animal Husbandry, Dairying, Poultry | 8 hours |
| Advanced Agricultural Economics, Farm Management | 6 hours |
| Advanced Agronomy | 6 hours |
| Advanced Horticulture | 6 hours |
| Advanced Farm Mechanics | 6 hours |
| English, History, Philosophy, Secondary Education, Genetics, Advanced Educational Psychology | 6 hours |
| Subjects of Special Interest | 4 hours |

## HOME ECONOMICS EDUCATION

The Home Economics Education curriculum is for students who wish to teach vocational home economics, to do home demonstration work, or to engage in other types of home economics enterprises in which teaching may be involved.

This is a general course including work in all phases of home economics—foods, clothing, child care—with professional training for teaching these subjects. Electives may be chosen from other colleges.

A combination curriculum for Home Economics and Physical Education is offered. This satisfies the state certification requirements for both subjects.

Opportunity for additional training and practice is given through directed teaching, home management house, and special work and observation of children in the University Nursery School.

Students electing this curriculum may register either in the College of Education or in the College of Home Economics. In either case they will register with the College of Education for the teachers' special diploma, which will be awarded only to students who shall have fulfilled all the requirements of this curriculum.

### Home Economics Education

| *Freshman Year* | Semester I | Semester II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Textiles and Clothing (H. E. 11f) | 3 | — |
| Design (H. E. 21s) | — | 3 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Physical Education (Phys. Ed. 2y and 4y) | 1 | 1 |
| Electives | 4 | 4 |
| | 16 | 16 |

| *Sophomore Year* | I | II |
|---|---|---|
| Introduction to Teaching (Ed. 2f and 3 s) | 2 | 2 |
| Foods (H. E. 31y) | 3 | 3 |
| Costume Design (H. E. 24f) | 3 | — |
| Textiles and Clothing (H. E. 12 s) | — | 3 |
| Elements of Organic Chemistry (Chem. 12f) | 5 | — |
| Special Applications of Physics (Phys. 3 s) | — | 4 |
| Physical Education (Phys. Ed. 6y and 8y) | 2 | 2 |
| Electives | 2 | 3 |
| | 17 | 17 |

| *Junior Year* | I | II |
|---|---|---|
| Educational Psychology (Ed. Psych. 1f) | 3 | — |
| Technic of Teaching (H. E. Ed. 5 s) | — | 2 |
| Observation of Teaching (H. E. Ed. 6 s) | — | 1–2 |

| | Semester I | Semester II |
|---|---|---|
| Household Bacteriology (Bact. 3 s) | — | 3 |
| Nutrition (H. E. 131f and 132 s) | 3 | 3 |
| Management of the Home (H. E. 141f and 142 s) | 3 | 3 |
| Advanced Clothing (H. E. 111f) | 3 | — |
| Electives | 4 | 3–4 |
| | 16 | 16 |
| *Senior Year* | | |
| Child Study (H. E. Ed. 102f) | 4–5 | — |
| Practice in Management of the Home (H. E. 143f) | 5 | — |
| Teaching Secondary Vocational Home Economics (H. E. Ed. 103f) | 4 | — |
| Interior Decoration (H. E. 121 s) | — | 3 |
| Problems in Teaching Home Economics (H. E. Ed. 106 s) | — | 1 |
| Principles of Secondary Education (Ed. 103 s) | — | 3 |
| Electives | 2–1 | 8 |
| | 15 | 15 |

Electives should include one course in each of the following groups: Botany, Zoology, Physiology, Genetics, Sociology, English Literature.

## INDUSTRIAL EDUCATION

Three types of program are offered in Industrial Education: a four-year curriculum leading to the degree of Bachelor of Science in Industrial Education; a program of professional courses to prepare teachers to meet the certification requirements in vocational and pre-vocational schools; a program of courses for the improvement of teachers in service.

### Four-Year Curriculum in Industrial Education

This curriculum is designed to prepare both trade and industrial teachers and teachers of industrial arts. There is sufficient latitude of electives so that a student may also meet certification requirements in some other high school subject.

The entrance requirements are the same as for other curricula offered in the University. Students entering this curriculum will be benefited by engaging in some trade or industry during the summer vacations.

One hundred twenty-eight semester credits are required for the degree of Bachelor of Science in Industrial Education.

*Students entering an Industrial Education curriculum must register in the College of Education.*

This curriculum, with slight variations according to the needs of the two groups, is so administered as to provide (A) a four-year curriculum in residence at College Park; (B) a four-year curriculum for teachers in service who have had some college work.

### A. Curriculum for Students in Residence

The distribution of the curriculum requirements is approximately as follows:

| | |
|---|---|
| Military Training or Physical Education | 6 semester hours |
| English, including Public Speaking | 12 semester hours |
| History and the Social Sciences | 20 semester hours |
| Science and Mathematics | 20 semester hours |
| Shop Work and Drawing | 30 semester hours |
| Education | 22 semester hours |
| Electives | 18 semester hours |

| | Semester I | Semester II |
|---|---|---|
| *Freshman Year* | | |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y) | 1 | 1 |
| Engineering Drafting (Dr. 1y) | 2 | 2 |
| Forge Practice (Shop 1f) | 2 | — |
| Pattern Shop (Shop 2 s) | — | 2 |
| Mathematics (Math. 1f and 2 s) | 3 | 3 |
| From the following groups: History, Social Science, Science, Foreign Language, Physical Education | 3–5 | 3–5 |
| | 15–17 | 15–17 |
| *Sophomore Year* | | |
| Introduction to Teaching (Ed. 2f and 3 s) | 2 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Machine Shop Practice (Shop 3f and 4 s) | 1 | 2 |
| Plane Surveying (Surv. 1f) | 1 | — |
| Foundry Practice (Shop 5 s) | — | 1 |
| From the following groups: English, History, Social Science, Mathematics, Science, Foreign Language, Physical Education | 10–11 | 9–10 |
| | 16–17 | 16–17 |

The curriculum in the junior and senior years follows closely the pattern of the Arts and Science Education curriculum. (See p. 109.)

*Attendance at one Summer Session is necessary in order to get certain Industrial Arts courses offered only in the Summer Session.*

### B. Curriculum for Teachers in Service

The distribution of curriculum requirements is the same as for Curriculum A, except that the military-physical training requirement is waived, education is 24 semester hours, and electives, 22 semester hours. In the mathematics and science group, and in the history and social science group, there is reasonable latitude for individual choice, but courses in mathematics as related to shopwork and courses in American history and government are required.

These curriculum requirements may be met by the in-service courses in Baltimore offered by the Department of Industrial Education and by Summer Session attendance.

### Program for Vocational and Pre-Vocational Teachers

This curriculum is designed for students who have had experience in some trade or industry or in the teaching of shopwork.

Applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent. The curriculum is prescribed, but it is administered flexibly in order that it may be adjusted to the needs of students.

To meet the needs for industrial teacher-training in Baltimore and in other industrial centers, extension courses are offered. The work of these courses deals with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, observation and practice of teaching, organization and management of trade and industrial classes, psychology of trade and industrial education, and occupational information, guidance, and placement.

The completion of eight teacher-training courses, which require, in general, two years of two hundred fifty-six clock hours, entitles one to a full three-year vocational teacher's certificate in the State of Maryland, and to a special diploma from the College of Education of the University of Maryland.

### Courses for Teachers in Service

Courses are offered for teachers in service who are seeking to satisfy requirements for promotion.

A special announcement of the in-service courses in Baltimore is issued in August of each year. This may be obtained from the office of the Registrar either in Baltimore or in College Park.

## COMMERCIAL EDUCATION

The entrance requirements for the curriculum in Commercial Education are as follows: English 3 units; Algebra 1 unit; Science 1 unit; History 1 unit; Stenography 2 units; Typewriting 1 unit; Bookkeeping 1 unit; elective 5 units.

The Commercial Education curriculum includes a solid foundation of economics, social science and history, accounting and business administration subjects, adequate courses in methods of teaching commercial subjects, and supervised teaching.

The number of electives is large enough to enable a student to prepare for teaching some other subject in addition to the commercial subjects.

The curriculum does not include any college courses in shorthand and typewriting for the improvement of skill in these arts. Any student desiring to become a candidate for the bachelor's degree in commercial education must meet the speed and accuracy requirements in shorthand and typewriting and transcription necessary to become a teacher of commercial subjects either by work in commercial offices during the summer or by such other means as may be practicable for improving his skill and accuracy.

| | *Semester* I | *Semester* II |
|---|---|---|
| *Freshman Year* | | |
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Introduction to the Social Sciences (Soc. Sci. 1y) | 3 | 3 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y) | 1 | 1 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Science (Biological or Physical) | 4 | 4 |
| One from the following groups: History, Mathematics, Literature, Foreign Language | 3 | 3 |
| | 15 | 15 |
| *Sophomore Year* | | |
| American History (H. 2y) | 3 | 3 |
| Introduction to Teaching (Ed. 2f and 3 s) | 2 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y) | 2 | 2 |
| Economic Geography and Industry (Econ. 1f) | 3 | — |
| Principles of Economics (Econ. 3y) | 3 | 3 |
| Advanced Composition and Rhetoric (Eng. 3f and 4 s) | 2 | 2 |
| Electives | 2 | 5 |
| | 17 | 17 |
| *Junior Year* | | |
| Principles of Accounting (Econ. 109y) | 3 | 3 |
| Business Organization and Operation (Econ. 7f) | 3 | — |
| Money and Credit (Econ. 101f) | 2 | — |
| Banking (Econ. 102 s) | — | 2 |
| Elements of Statistics (Gen. 114 s) | — | 3 |
| Educational Psychology (Ed. Psych. 1f) | 3 | — |
| Technic of Teaching (Ed. 5 s) | — | 2 |
| Electives | 5 | 6 |
| | 16 | 16 |
| *Senior Year* | | |
| Business Law (Econ. 107f and 108 s) | 3 | 3 |
| Insurance (Econ. 105f) | 2 | — |
| Public Finance (Econ. 114 s) | — | 3 |
| Methods in Commercial Subjects (Ed. 150f and 151 s) | 4 | 2 |
| Supervised Teaching of Commercial Subjects (Ed. 153 s) | — | 3 |
| Principles of Secondary Education (Ed. 103 s) | — | 3 |
| Electives | 7 | — |
| | 16 | 14 |

## PHYSICAL EDUCATION

The Physical Education Curriculum is designed primarily to prepare teachers of physical education for the high schools. It includes 31 semester hours of physical education courses, exclusive of methods and supervised teaching. It is sufficiently specialized to meet that need. At the same time it is flexible enough so that certification requirements in other high school subjects may be met.

The curriculum includes separate courses for men and for women. Certain of these courses are open to both men and women (See Sec. III, p. 216).

A combination curriculum for Physical Education (women) and Home Economics satisfies the State certification requirements for both subjects. *Plans for such combination should be made at the beginning of the sophomore year.* The variations in the curriculum for men and for women are shown in the curriculum outlined below.

Upon satisfactory completion of the curriculum the degree of Bachelor of Science will be conferred.

*Students electing this curriculum must register in the College of Education.*

### General Requirements

The general requirements are the same as for Arts and Science Education (see p. 108), except that a foreign language is not required, and 14 semester hours of biological science are required as specified in the schedule.

| *Freshman Year* | Semester I | Semester II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| General Zoology (Zool. 1f) | 4 | — |
| General Bacteriology (Bact. 1 s) | — | 4 |
| Introduction to the Social Sciences (Soc. Sci. 1y) | 3 | 3 |
| From the following groups: History, Science, Foreign Language, Mathematics, Home Economics | 3-4 | 3-4 |
| (Women) | | |
| Personal Hygiene and Physical Activities (Phys. Ed. 2y and 4y) | 1 | 1 |
| Fundamentals of Rhythm and Dance (Phys. Ed. 10y) | 1 | 1 |
| Music Appreciation (Mus. 1y) | 1 | 1 |
| (Men) | | |
| Basic R. O. T. C. (M. I. 1y) | 1 | 1 |
| Physical Activities (Phys. Ed. 1y) | 1 | 1 |
| Personal and Community Hygiene (Phys. Ed. 11y) | 2 | 2 |
| | 17–18 | 17–18 |

| *Sophomore Year* | Semester I | Semester II |
|---|---|---|
| Introduction to Teaching (Ed. 2f and 3s) | 2 | 2 |
| Advanced Composition and Rhetoric (Eng. 3f and 4s) or Expository Writing (Eng. 5f and 6s) | 2 | 2 |
| Elementary Human Physiology (Zool. 15f) | 3 | — |
| Pathogenic Bacteriology (Bact. 2As) | — | 2 |
| Electives | 4 | 5 |
| (Women) | | |
| Personal Hygiene and Physical Activities (Phys. Ed. 6y and 8y) | 2 | 2 |
| Games (Phys. Ed. 12f) | 2 | — |
| Natural Gymnastics (Phys. Ed. 20 s) | — | 2 |
| Clogs and Athletic Dances (Phys. Ed. 28f) | 2 | — |
| Folk Dancing (Phys. Ed. 30 s) | — | 2 |
| (Men) | | |
| Basic R. O. T. C. (M. I. 2y) | 2 | 2 |
| Physical Activities (Phys. Ed. 3y) | 2 | 2 |
| Survey of Physical Education (Phys. Ed. 21y) | 2 | 2 |
| | 17 | 17 |

| *Junior Year* | Semester I | Semester II |
|---|---|---|
| Educational Psychology (Ed. Psych. 1 f) | 3 | — |
| Technic of Teaching (Ed. 5 s) | — | 2 |
| First Aid (Phys. Ed. 16 s) | — | 1 |
| Electives | 6 | 6–8 |
| (Women) | | |
| Physical Education Activities for High School Girls (Phys. Ed. 140y) | 2 | 2 |
| Athletics (Phys. Ed. 18 f and s) | 2 | 2 |
| Natural Dancing (Phys. Ed. 32 f) | 2 | — |
| (Men) | | |
| Physical Education Practice (Phys. Ed. 5 y) | 2 | 2 |
| Technics of Teaching Physical Education (Phys. Ed. 23y) | 2 | 2 |
| Coaching High School Athletics (Phys. Ed. 13y) | 2 | 2 |
| | 15 | 15 |

| *Senior Year* | Semester I | Semester II |
|---|---|---|
| Principles of Secondary Education (Ed. 103 s) | — | 3 |
| Special Methods and Supervised Teaching (See Methods in High School Subjects. Sec. III, p. 210) | 3 | 2 |
| (Women) | | |
| Coaching and Officiating, Athletics for Girls (Phys. Ed. 26 y) | 2 | 2 |
| Electives | 10 | 7–8 |
| (Men) | | |
| Special Advanced Speaking (P. S. 15 f and 16 s) | 2 | 2 |
| Management of Intramural Athletics (Phys. Ed. 15Ay) | 2 | 2 |
| Electives | 7 | 5 |
| | 14-15 | 14–15 |

# COLLEGE OF ENGINEERING

A. N. JOHNSON, *Dean*

Whether a man follows engineering as his life's work or enters other fields, it is well recognized that the training received in the engineering colleges of today affords a splendid preparation for many callings in public and private life outside the engineering profession.

The College of Engineering includes the Departments of Civil, Electrical, and Mechanical Engineering. A few years ago the curricula were considerably changed, the general purpose being to broaden the courses of instruction, that young men might be better prepared to enter industry or the public service. In either field there is abundant opportunity; each demands the civil, the electrical, and the mechanical engineer. Maryland needs men to carry on her great highway work and large public undertakings, as well as to carry on her industries. Such training, therefore, seems pre-eminently a function of the State's University.

The subject matter of the courses is not essentially different from that usually given. In order to give the time necessary to technical subjects, as well as to those of a more general character, courses of study are so prescribed that the time in each semester may be used to the best advantage.

The studies prescribed for freshmen and sophomores are practically the same for all branches of engineering. Among the advantages that such a plan has is the important one that the young man will not be called upon to decide definitely the branch of engineering in which he will specialize until his junior year.

Engineering Research has been carried on in the Engineering College, particularly in the highway engineering field. Such work has been made possible through co-operation with the State Roads Commission of Maryland and the U. S. Bureau of Public Roads.

### Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics. See Section I, "Entrance."

It is possible, however, for high school graduates having the requisite number of entrance units to enter the Engineering College without the unit of advanced algebra, or the one-half unit of solid geometry, provided such students are prepared to devote their first summer to a course in analytic geometry. The program for such students would be as follows: During the first semester, five hours a week would be devoted to making up advanced algebra and solid geometry; in the second semester, mathematics of the first semester would be taken, and the second semester mathematics would be taken in the summer session. Thus, such students, if they passed the course, would be enabled to enter the sophomore year the next fall with their class without loss of time.

### Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in civil, electrical, and mechanical engineering, respectively.

### Master of Science in Engineering

The degree of Master of Science in Engineering is given to students registered in the Graduate School who hold bachelor degrees in engineering, which represent an amount of preparation and work similar to that required for bachelor degrees in the Engineering College of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

### Professional Degrees in Engineering

The degrees of Civil Engineer, Electrical Engineer, and Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work not less than three years.

2. His registration for a degree must be approved at least twelve months prior to the date at which the degree is to be conferred. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.

3. He shall present a satisfactory thesis on an approved subject.

4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical, and Mechanical Engineering.

### Equipment

The Engineering building is provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories, and shops for various phases of engineering work.

**Drafting-Rooms.** The drafting-rooms are equipped for practical work. The engineering student must provide himself with an approved drawing outfit, material, and books, the cost of which during the freshman year amounts to $16.00 to $20.00.

**Electrical Engineering Laboratory.** The equipment includes many of the various types of direct current and alternating current generators and motors, rotary converter, distribution transformers, control apparatus, and the measuring instruments essential to practical electrical testing. For experimental work, electrical power is obtained from engine-driven units and a turbine generator; a storage battery is used for constant voltage-testing.

Instruments are available for measuring the candle power of lamps and for the determination of illumination intensities. The standardizing laboratory apparatus includes primary and secondary standards used in calibrating laboratory instruments.

The telephone laboratory is equipped with apparatus for experimental work on magneto and common battery systems. The radio apparatus is limited, at present, to receiving sets.

**Mechanical Engineering Laboratory.** The apparatus consists of plain slide valve engines, steam turbine set, fans, pumps, indicators, gauges, feed water heaters, tachometers, injectors, flow meters, apparatus for determination of the B. T. U. in coal, gas, and liquid fuels, pyrometers, draft gauges, planimeters, thermometers, and other necessary apparatus and equipment for a mechanical laboratory.

**Materials Laboratory.** Apparatus and equipment are provided for making standard tests on various construction materials as steel, concrete, timber, and brick.

Equipment includes two 100,000-pound universal testing machines, cement-testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

**Highway Research Laboratory.** Certain problems in highway research have been undertaken and are actively under way, being carried on in co-operation with the State Roads Commission and the U. S. Bureau of Public Roads.

A study of the traffic over the Maryland state highway system has been in progress, and traffic maps have been prepared, which cover the entire state highway system.

The elastic properties of concrete have been studied in the laboratory; this work being co-ordinated with the general program of research problems undertaken by the U. S. Bureau of Public Roads.

In co-operation with the State Roads Commission, samples of concrete are taken every year from the concrete roads of the State, these samples consisting of cores cut from the road by a special core drill apparatus mounted upon a suitably equipped truck. The cores are brought into the laboratory, where they are tested, records of the results being sent to the State Roads Commission.

**Machine Shops and Foundry.** The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge, and foundry practice are provided for engineering students.

The wood-working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines, and drill presses.

The foundry is provided with an iron cupola, a brass furnace, and a coke oven.

The shop equipment not only furnishes practice, drill, and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

**Surveying Equipment.** Surveying equipment for plane topographic, and geodetic surveying is provided properly to equip several field parties. A wide variety of types of instruments is provided, including domestic as well as foreign makes.

**Special Models and Specimens.** A number of models illustrating various types of highway construction and highway bridges are available for students in this branch of engineering.

A wide variety of specimens of the more common minerals and rocks has been collected from various sections of the country, particularly from Maryland.

## Library

Each department maintains a library for reference, and receives the standard engineering magazines.

The class work, particularly in the higher courses, requires that the students consult special books of reference and current technical literature.

## Curricula

The normal curriculum of each department is outlined on the following pages. Students are also expected to attend and take part in the meetings of the Engineering Society, Seminar, and engineering lectures.

Junior and senior students with requisite standing may elect additional hours not to exceed three a semester.

All members of the freshman engineering class are required to attend a series of lectures, the speakers, for the most part, being other than engineers. Each student is required to hand in a brief written summary of each lecture.

All engineering students are urged to get work during the summer, particularly in some engineering field, if possible. On the return of the students in the fall, each is given a blank on which to state the kind of work upon which he has been engaged for the past summer, the name of the employer, and the amount of money he earned. Such records are helpful when the students wish to secure employment upon graduation.

The proximity of the University to Baltimore and Washington, and to other places where there are great industrial enterprises, offers an excellent opportunity for the engineering student to observe what is being done in his chosen field. An instructor accompanies students on all trips of inspection.

Practically the same program is required of all students in engineering in the freshman and sophomore years.

| *Freshman Year* | *Semester* I | II |
|---|---|---|
| Composition and Rhetoric (Eng. 1y) | 3 | 3 |
| *Introduction to the Social Sciences (Soc. Sci. 1y) | 3 | 3 |
| *Modern Language | 3 | 3 |
| Reading and Speaking (P. S. 1y) | 1 | 1 |
| Advanced Algebra, Trigonometry; Analytic Geometry (Math. 3f and 4 s) | 5 | 5 |
| General Chemistry (Chem. 1y) | 4 | 4 |
| Engineering Drafting (Dr. 1y) | 1 | 1 |
| Forge Practice; Pattern Shop (Shop 1f and 2 s) | 1 | 1 |
| Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y) | 1 | 1 |
| Engineering Lectures | — | — |
|  | 19 | 19 |

| *Sophomore Year* |  |  |
|---|---|---|
| Oral Technical English (P. S. 4y) | 1 | 1 |
| *Modern Language (Adv. Course) | 3 | 3 |
| *Modern European History (H. 1y) | 3 | 3 |
| Calculus; Elementary Differential Equations (Math. 6y) | 5 | 5 |
| General Physics (Phys. 2y) | 5 | 5 |
| Descriptive Geometry (Dr. 2y) | 2 | 2 |
| Machine Shop Practice (Shop 3f and 4 s) M. and E. | 1 | 2 |
| Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y) | 2 | 2 |
| Plane Surveying (Surv. 1f) M. and E. | 1 | — |
| Civil (Surv. 2y) | 2 | 2 |
| Engineering Lectures | — | — |
|  | 20 | 20 |

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* Alternatives.

## CIVIL ENGINEERING

| *Junior Year* | *Semester* I | II |
|---|---|---|
| Fundamentals of Economics (Econ. 5f) | 3 | — |
| *Advanced Oral Technical English (P. S. 5y) | 1 | 1 |
| *Engineering Geology (Engr. 3y) | 1 | 1 |
| Engineering Mechanics (Mech. 2y) | 5 | 4 |
| Prime Movers (Engr. 1y) | 2 | 2 |
| Elements, Design of Structures (C. E. 102 s) | — | 5 |
| *Materials of Engineering (Mech. 3 s) | — | 2 |
| Advanced Surveying (Surv. 101f) | 3 | — |
| Elements of Railroads (C. E. 101f) | 3 | — |
| Land Transportation (Econ. 112 s) | — | 3 |
| Engineering Lectures | — | — |
|  | 18 | 18 |

| *Senior Year* |  |  |
|---|---|---|
| *Advanced Oral Technical English (P. S. 6y) | 1 | 1 |
| *Engineering Jurisprudence (Engr. 102 s) | — | 1 |
| *Engineering Economy (Engr. 101 s) | — | 1 |
| Engineering Chemistry (Chem. 111f) | 2 | — |
| Sanitary Bacteriology (Bact. 4 s) | — | 1 |
| Highways (C. E. 106f) | 4 | — |
| Bridges, Masonry and Steel (C. E. 105y) | 4 | 4 |
| Buildings, Masonry and Steel (C. E. 104y) | 4 | 4 |
| Sanitation (C. E. 107y) | 3 | 3 |
| Thesis (C. E. 108 s) | — | 3 |
| Engineering Lectures | — | — |
|  | 18 | 18 |

## ELECTRICAL ENGINEERING

| *Junior Year* |  |  |
|---|---|---|
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Differential Equations (Math. 103f) | 3 | — |
| *Advanced Oral Technical English (P. S. 5y) | 1 | 1 |
| *Engineering Geology (Engr. 3y) | 1 | 1 |
| Engineering Mechanics (Mech. 1y) | 4 | 3 |
| *Materials of Engineering (Mech. 3 s) | — | 2 |
| Elements of Machine Design (M. E. 101f) | 1 | — |
| Direct Currents (E. E. 102y) | 5 | 5 |
| Prime Movers (Engr. 2y) | 2 | 2 |
| Electrical Machine Design (E. E. 103y) | 1 | 1 |
| Engineering Lectures | — | — |
|  | 18 | 18 |

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* Required of all Engineering students.

| *Senior Year* | Semester I | Semester II |
|---|---|---|
| *Advanced Oral Technical English (P. S. 6y) | 1 | 1 |
| *Engineering Jurisprudence (Engr. 102 s) | — | 1 |
| *Engineering Economy (Engr. 101 s) | — | 1 |
| Engineering Chemistry (Chem. 111f) | 2 | — |
| Alternating Currents (E. E. 104y) | 5 | 5 |
| Electrical Machine Design (E. E. 105y) | 1 | 2 |
| †Electric Railways and Electric Power Transmission (E. E. 106y) | 3 | 4 |
| †Telephones and Telegraphs (E. E. 107y) | 3 | 4 |
| †Radio Telegraphy and Telephony (E. E. 108y) | 3 | 4 |
| †Illumination (E. E. 109y) | 3 | 4 |
| Thermodynamics (Mech. 101f) | 3 | — |
| Engineering Lectures | — | — |
|  | 18 | 18 |

### MECHANICAL ENGINEERING

| *Junior Year* | Semester I | Semester II |
|---|---|---|
| Fundamentals of Economics (Econ. 5 s) | — | 3 |
| Differential Equations (Math. 103f) | 3 | — |
| *Advanced Oral Technical English (P. S. 5y) | 1 | 1 |
| *Engineering Geology (Engr. 3y) | 1 | 1 |
| Engineering Mechanics (Mech. 1y) | 4 | 3 |
| *Materials of Engineering (Mech. 3 s) | — | 2 |
| Foundry Practice (Shop 5 s) | — | 1 |
| Kinematics and Machine Design (M. E. 102y) | 3 | 4 |
| Engineering Chemistry (Chem. 111f) | 3 | — |
| Thermodynamics (Mech. 102y) | 3 | 3 |
| Engineering Lectures | — | — |
|  | 18 | 18 |

| *Senior Year* | Semester I | Semester II |
|---|---|---|
| *Advanced Oral Technical English (P. S. 6y) | 1 | 1 |
| *Engineering Jurisprudence (Engr. 102 s) | — | 1 |
| *Engineering Economy (Engr. 101 s) | — | 1 |
| Internal Combustion Engines (M. E. 103s) | — | 3 |
| Design of Prime Movers (M. E. 107y) | 3 | 3 |
| Design of Power Plants (M. E. 108 s) | — | 2 |
| Design of Pumping Machinery (M. E. 106 s) | — | 2 |
| Heating and Ventilation (M. E. 105f) | 2 | — |
| Elements of Chemical Engineering (Chem. 120f) | 4 | — |
| Mechanical Laboratory (M. E. 109y) | 1 | 1 |
| Principles of Electrical Engineering (E. E. 101y) | 4 | 4 |
| Heat Power Engineering (M. E. 104f) | 3 | — |
| Engineering Lectures | — | — |
|  | 18 | 18 |

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* Required of all Engineering students.
† Select two.

# COLLEGE OF HOME ECONOMICS

M. Marie Mount, *Dean*

Home economics subjects are planned to meet the needs of the following classes of students: (1) those who desire a general knowledge of home economics without specializing in any one phase; (2) those who wish to teach home economics or to become extension specialists in home economics; (3) those who are interested in certain phases of home economics with the intention of becoming dietitians, restaurant and cafeteria managers, textile specialists, designers, buyers of clothing in department stores, or demonstrators for commercial firms.

## Departments

For administrative purposes the College of Home Economics is organized into the Departments of Foods and Nutrition; Textiles, Clothing, and Art; and Home and Institution Management.

## Facilities

The Home Economics Building is adequately equipped with class rooms and laboratories. In addition the college also maintains a home management house, in which students gain practical experience in home-making during their senior year.

Baltimore and Washington afford unusual opportunities for trips, additional study, and practical experience pertaining to the various phases of home economics.

## Degree

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, of 128 semester hours. In accordance with the University policy, not less than three-fourths of the credits for graduation must be earned with grades of A, B, or C.

## Prescribed Curricula

All students registered in the College of Home Economics follow the General Home Economics Curriculum for the first two years. At the beginning of the junior year a student may continue with the General Home Economics Curriculum, or elect one of the following special curricula, or a combination of curricula. A student who wishes to teach home economics may register in Home Economics Education in the College of Home Economics, or in the College of Education (see Home Economics Education).

Following are the outlines of the Curricula for General Home Economics, Textiles and Clothing, Foods and Nutrition, and Institution Management:

## GENERAL HOME ECONOMICS

| | Semester | |
|---|---|---|
| *Freshman Year* | I | II |
| Composition and Rhetoric (Eng. 1 y) | 3 | 3 |
| General Chemistry (Chem. 1 y) | 4 | 4 |
| Textiles and Clothing (H. E. 11 f) | 3 | — |
| Design (H. E. 21 s) | — | 3 |
| Reading and Speaking (P. S. 1 y) | 1 | 1 |
| Physical Education (Phys. Ed. 2 y and 4 y) | 1 | 1 |
| *Language or Electives | 3 | 3 |
| Home Economics Lectures | — | — |
| | 15 | 15 |

| *Sophomore Year* | I | II |
|---|---|---|
| Costume Design (H. E. 24 f) | 3 | — |
| Textiles and Clothing (H. E. 12 s) | — | 3 |
| Elements of Organic Chemistry (Chem. 12 f) | 5 | — |
| Foods (H. E. 31 y) | 3 | 3 |
| Special Applications of Physics (Phys. 3 s) | — | 4 |
| Physical Education (Phys. Ed. 6 y and 8 y) | 2 | 2 |
| **Electives | 4 | 5 |
| | 17 | 17 |

| *Junior Year* | I | II |
|---|---|---|
| Nutrition (H. E. 131 f and 132 s) | 3 | 3 |
| Management of the Home (H. E. 141 f and 142 s) | 3 | 3 |
| Advanced Clothing (H. E. 111 f) | 3 | — |
| Household Bacteriology (Bact. 3 s) | — | 3 |
| Electives | 8 | 8 |
| | 17 | 17 |

| *Senior Year* | I | II |
|---|---|---|
| Child Study (H. E. Ed. 102 f) | 5 | — |
| Practice in Management of the Home (H. E. 143f) | 5 | — |
| Choice of one unit in Foods, Clothing, or Textiles, or an additional unit in Child Study | 5 | — |
| Interior Decoration (H. E. 121 s) | — | 3 |
| **Electives | — | 12 |
| | 15 | 15 |

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* The language requirement may be waived for students entering with three or more years of a language.

** In addition to the curriculum as prescribed, one course in each of the groups indicated below, is required:
economics; psychology; sociology; and one of the following sciences:
zoology, botany, or genetics.

## *TEXTILES AND CLOTHING CURRICULUM

| | Semester | |
|---|---|---|
| *Junior Year* | I | II |
| Household Bacteriology (Bact. 3 s) | — | 3 |
| Nutrition (H. E. 131 f) | 3 | — |
| Advanced Clothing (H. E. 111 f) | 3 | — |
| Chemistry of Textiles (Chem. 14 s) | — | 3 |
| Management of the Home (H. E. 141 f and 142 s) | 3 | 3 |
| Advanced Textiles (H. E. 114 f) | 3 | — |
| Electives | 5 | 8 |
| | 17 | 17 |

| *Senior Year* | I | II |
|---|---|---|
| Practice in Management of the Home (H. E. 143f) | 5 | — |
| Child Study (H. E. Ed. 102 f) | 4 | — |
| Problems and Practice in Textiles, Clothing or Related Art (H. E. 113 f) | 5 | — |
| Interior Decoration (H. E. 121 s) | — | 3 |
| Advanced Design (H. E. 123 s) | — | 3 |
| Special Clothing Problems (H. E. 112 s) | — | 3 |
| Electives | 1 | 6 |
| | 15 | 15 |

## FOODS CURRICULUM

| *Junior Year* | I | II |
|---|---|---|
| General Physiological Chemistry (Chem. 108 s) | — | 4 |
| Nutrition (H. E. 131 f and 132 s) | 3 | 3 |
| Management of the Home (H. E. 141 f and 142 s) | 3 | 3 |
| Demonstrations (H. E. 133 f) | 2 | — |
| Household Bacteriology (Bact. 3 s) | — | 3 |
| Electives | 9 | 4 |
| | 17 | 17 |

| *Senior Year* | I | II |
|---|---|---|
| Child Study (H. E. Ed. 102 f) | 4 | — |
| Practice in Management of the Home (H. E. 143f) | 5 | — |
| Problems and Practice in Foods (H. E. 135 f) | 5 | — |
| Interior Decoration (H. E. 121 s) | — | 3 |
| Advanced Foods (H. E. 134 s) | — | 3 |
| Electives | 1 | 9 |
| | 15 | 15 |

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* Upon the advice of the instructor in charge, the Textiles and Clothing curriculum may be modified for the election of art courses.

## INSTITUTION MANAGEMENT CURRICULUM

| *Junior Year* | *Semester* *I* | *II* |
|---|---|---|
| General Physiological Chemistry (Chem. 108 s) | — | 4 |
| Household Bacteriology (Bact. 3 s) | — | 3 |
| *Nutrition (H. E. 131 f and 132 s) | 3 | 3 |
| Management of the Home (H. E. 141 f and 142 s) | 3 | 3 |
| Institution Management (H. E. 144 y) | 3 | 3 |
| Electives | 8 | 1 |
|  | 17 | 17 |
| *Senior Year* |  |  |
| Practice in Management of the Home (H. E. 143 f) | 5 | — |
| Child Study (H. E. Ed. 102 f) | 4 | — |
| Practice in Institution Management (H. E. 145 f)<br>or<br>Problems and Practice in Foods (H. E. 135 f) | 5 | — |
| Advanced Institution Management (H. E. 146 s) | — | 3 |
| Interior Decoration (H. E. 121 s) | — | 3 |
| Mental Hygiene (Ed. Psych. 105 s) | — | 3 |
| Electives | 1 | 6 |
|  | 15 | 15 |

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* In addition to Nutrition (H. E. 131 f and 132 s), Child Nutrition (H. E. 136 s) or Seminar in Nutrition is required.

# THE GRADUATE SCHOOL

C. O. Appleman, *Dean*

## GENERAL INFORMATION

### HISTORY AND ORGANIZATION

In the earlier years of the institution the Master's degree was frequently conferred, but the work of the graduate students was in charge of the departments concerned, under the supervision of the General Faculty. The Graduate School of the University of Maryland was established in 1918, and organized graduate instruction leading to both the Master's and the Doctor's degree was undertaken. The faculty of the Graduate School includes all members of the various faculties who give instruction in approved graduate courses. The general administrative functions of the Graduate Faculty are delegated to a Graduate Council, of which the Dean of the Graduate School is chairman.

### LIBRARIES

In addition to the resources of the University library, the great libraries of the National Capital are easily available for reference work. Because of the proximity of these libraries to College Park they are a valuable asset to research and graduate work at the University of Maryland.

The library building at College Park contains a number of seminar rooms and other desirable facilities for graduate work.

### THE GRADUATE CLUB

The graduate students maintain an active Graduate Club. Several meetings for professional and social purposes are held during the year. Students working in different departments have an opportunity to become acquainted with one another and thus profit by the cultural values derived from association with persons working in different fields.

## GENERAL REGULATIONS

### ADMISSION

Graduates of colleges and universities of good standing are admitted to the Graduate School. Before entering upon graduate work all applicants must present evidence that they are qualified by their previous work to pursue with profit the graduate courses desired. Application blanks for admission to the Graduate School are obtained from the office of the Dean. After approval of the application, a matriculation card, signed by the Dean, is issued to the student. This card permits one to register in the Graduate School. After payment of the fee, the matriculation card is stamped and returned. It is the student's certificate of membership in the Graduate School, and may be called for at any succeeding registration.

*Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree.*

## REGISTRATION

All who are pursuing graduate work in the University, even though they are not candidates for higher degrees, are required to register at the beginning of each semester in the office of the Dean of the Graduate School, Room T-214, Agriculture Building. Students taking graduate work in the Summer Session are also required to register in the Graduate School at the beginning of each session. In no case will graduate credit be given unless the student matriculates and registers in the Graduate School. The program of work for the semester or the summer session is entered upon two course cards, which are signed first by the professor in charge of the student's major subject and then by the Dean of the Graduate School. One card is retained in the Dean's office. The student takes the other card, and, in case of a new student, also the matriculation card, to the Registrar's office, where a charge slip for fees is issued. The charge slip, together with the course card, is presented at the Cashier's office for adjustment of fees. After certification by the Cashier that fees have been paid, class cards are issued by the Registrar. Students will not be admitted to graduate courses without class cards. Course cards may be obtained at the Registrar's office or at the Dean's office. The heads of departments usually keep a supply of these cards in their respective offices.

## GRADUATE COURSES

Graduate students must elect for credit in partial fulfillment of the requirements for higher degrees only courses designated *For Graduates* or *For Graduates and Advanced Undergraduates.* Graduate students may elect courses numbered from 1 to 99, but graduate credit will not be allowed for these. Students with inadequate preparation may be obliged to take some of these courses as prerequisites for advanced courses.

## PROGRAM OF WORK

The professor who is selected to direct a student's thesis work is the student's adviser in the formulation of a graduate program including suitable minor work, which is arranged in coöperation with the instructors. The Dean's approval of this program is indicated by his endorsement of the student's course card.

To encourage thoroughness in scholarship through intensive application, graduate students in the regular sessions are limited to a program of thirty credit hours for the year. If a student in residence is doing only research

work he must register and pay for a minimum of four credit hours per semester. The number of credit hours reported at the end of the semester will depend upon the work accomplished, but it will not exceed the number for which the student is registered.

## SUMMER GRADUATE WORK

Graduate work in the Summer Session may be counted as residence toward an advanced degree. By carrying approximately six semester hours of graduate work for four summer sessions and submitting a satisfactory thesis, a student may be granted the degree of Master of Arts or Master of Science. In some instances a fifth summer may be required in order that a satisfactory thesis may be completed.

Upon recommendation by the head of the student's major department and with the approval of the Graduate Council, a maximum of six semester hours of graduate work done at other institutions of sufficiently high standing may be substituted for required work here; such substitution does not shorten the required residence period.

By special arrangement, graduate work may be pursued during the entire summer in some departments. Such students as graduate assistants, or others who may wish to supplement work done during the regular year, may satisfy one-third of an academic year's residence by full-time graduate work for eleven or twelve weeks, provided satisfactory supervision and facilities for summer work are available in their special fields.

The University publishes a special bulletin, giving full information concerning the Summer Session and the graduate courses offered therein. The bulletin is available upon application to the Registrar of the University.

## GRADUATE WORK IN PROFESSIONAL SCHOOLS AT BALTIMORE

Graduate courses and opportunities for research are offered in some of the professional schools at Baltimore. Students pursuing graduate work in the professional schools must register in the Graduate School, and meet the same requirements and proceed in the same way as do graduate students in other departments of the University.

## GRADUATE WORK BY SENIORS IN THIS UNIVERSITY

Seniors who have completed all their undergraduate courses in this University by the end of the first semester, and who continue their residence in the University for the remainder of the year, are permitted to register in the Graduate School and secure the privileges of its membership, even though the bachelor's degree is not conferred until the close of the year.

A senior of this University who has nearly completed the requirements for the undergraduate degree may, with the approval of his undergraduate dean and the Dean of the Graduate School, register in the undergraduate college for graduate courses, which will be transferred for graduate credit toward a higher degree at this University; but the total of undergraduate and graduate courses must not exceed fifteen credits for the semester.

## ADMISSION TO CANDIDACY FOR ADVANCED DEGREES

Application for admission to candidacy for either the Master's or the Doctor's degree is made on application blanks, which are obtained at the office of the Dean of the Graduate School. These are filled out in duplicate, and, after the required endorsements are obtained, the applications are acted upon by the Graduate Council. An official transcript of the candidate's undergraduate record and any graduate courses completed at other institutions must be filed in the Dean's office before the application can be considered.

A student making application for admission to candidacy for the degree of Doctor of Philosophy must also have obtained from the head of the Modern Language Department a statement that he possesses a reading knowledge of French and German.

Admission to candidacy in no case assures the student of a degree, but merely signifies that he has met all the formal requirements and is considered by his instructors sufficiently prepared and able to pursue such graduate study and research as are demanded by the requirements of the degree sought. The candidate must show superior scholarship by the type of graduate work already completed. Preliminary examinations or such other substantial tests as the departments may elect are also required for admission to candidacy for the degree of Doctor of Philosophy.

Application for admission to candidacy is made at the time stated in the sections dealing with the requirements for the degree sought.

## REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

**Advancement to Candidacy.** Each candidate for the Master's degree is required to make application for admission to candidacy not later than the date when instruction begins for the second semester of the academic year in which the degree is sought, but not until at least twelve semester course hours of graduate work have been completed.

**Residence Requirements.** Two semesters or four summer sessions may satisfy the residence requirement for the degree of Master of Arts or Master of Science. Inadequate preparation for the graduate courses the student wishes to pursue may make a longer period necessary.

**Course Requirements.** A minimum of twenty-four semester hours in courses approved for graduate credit is required for the Master's degree. If the student is inadequately prepared for the required graduate courses, in either the major or minor subjects, additional courses may be required to supplement the undergraduate work. Not less than twelve semester hours and not more than fifteen semester hours in graduate courses must be taken in the major subject. The remaining credits of the total of twenty-four hours required must be outside the major subject, and must comprise a group of coherent courses intended to supplement and support the major work. Not less than one-half of the total required course credits for the Master's degree must be selected from courses numbered 200 or above. The entire course of study must constitute a unified program approved by the student's major adviser and by the Dean of the Graduate School. No credits that are reported with a grade lower than "C" are acceptable for an advanced degree.

At least eighteen of the twenty-four semester course credits required for the Master's degree must be earned at this institution. In certain cases graduate work done in other graduate schools of sufficiently high standing may be substituted for the remaining required credits, but any such substitution of credits does not shorten the normal required residence at the University of Maryland. The Graduate Council, upon recommendation of the head of the major department, passes upon all graduate work done at other institutions. The final examination will cover all graduate work offered in fulfillment of the requirements for the degree.

**Thesis.** In addition to the twenty-four semester hours in graduate courses a satisfactory thesis is required of each candidate for the Master's degree. It must demonstrate the student's ability to do independent work, and it must be acceptable in literary style and composition. It is assumed that the time devoted to thesis work will be not less than the equivalent of six semester hours earned in graduate courses. If the Master's thesis is based upon independent research, the student may be required to register in research courses, but not more than four semester hours in these can be included in the twenty-four semester hours required in graduate courses for the Master's degree. With the approval of the student's major professor and the Dean of the Graduate School, the thesis in certain cases may be prepared *in absentia* under direction and supervision of a member of the faculty of this institution.

The thesis should be typewritten, double spaced, on a good quality of paper 11 x 8½ inches in size. The original copy must be deposited in the office of the Graduate School not later than two weeks before Commencement. It should be held together with removable clamp, and placed in a manila or other durable folder, with the title and the name of the writer on the outside. The thesis should not be stapled, as it is later bound by the University and placed in the University library. One or two additional carbon copies should be provided for use of members of the examining committee prior to the final examination. If the thesis contains extensive charts or graphs, it is not necessary to duplicate them in the carbon copies, as the official copy will be accessible to the examining committee.

**Final Examination.** The final oral examination is conducted by a committee appointed by the Dean of the Graduate School. The student's adviser acts as chairman of the committee. The other members of the committee are persons under whom the student has taken most of his major and minor courses. The chairman and the candidate are notified of the personnel of the examining committee at least one week prior to the period set for final examinations. The chairman of the committee selects the exact time and place for the examination and notifies the other members of the committee and the candidate. A report of the examination should be sent to the Dean as soon as possible after the examination on a special form supplied for this purpose to the chairman of the committee. Such a report is the basis upon which recommendation is made to the faculty that the candidate be granted the degree sought. The period for the oral examination is usually one hour.

The examining committee also approves the thesis, and it is the candidate's obligation to see that each member of the committee has ample opportunity to examine a copy of the thesis prior to the date of the examination.

A student will not be admitted to final examination until all other requirements for the degree shall have been met.

## REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

**Advancement to Candidacy.** Candidates for the Doctor's degree must be admitted to candidacy not later than one academic year prior to the granting of the degree. Applications for admission to candidacy for the Doctor's degree must be deposited in the office of the Dean not later than the first Wednesday in October of the academic year in which the degree is sought.

**Residence.** Three years of full-time resident graduate study are required. The first two of the three years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. The degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship and ability to carry on independent research in the special field in which the major work is done.

**Major and Minor Subjects.** The candidate must select a major and one or two closely related minor subjects. Thirty semester hours of minor work are required. The remainder of the required residence is devoted to intensive study and research in the major field. The amount of required course work in the major subject will vary with the department and the individual candidate.

**Thesis.** The ability to do independent research must be shown by a dissertation on some topic connected with the major subject. The original typewritten copy of the thesis must be deposited in the office of the Dean at least three weeks before Commencement. One or two extra copies should be provided for use of members of the examining committee prior to the date of the final examination. The thesis is later printed in such form as the committee and the Dean may approve, and fifty copies are deposited in the University library.

**Final Examination.** The final oral examination is held before a committee appointed by the Dean. One member of this committee is a representative of the Graduate Faculty who is not directly concerned with the student's graduate work. One or more members of the committee may be persons from other institutions, who are distinguished scholars in the student's major field.

The duration of the examination is approximately three hours, and covers the research work of the candidate as embodied in his thesis, and his attainments in the fields of his major and minor subjects. The other detailed procedures are the same as those stated for the Master's examination.

## RULES GOVERNING LANGUAGE EXAMINATIONS FOR DOCTOR OF PHILOSOPHY CANDIDATES

1. Candidates for the Doctor's degree are expected to possess a reading knowledge of French and German. In the examination they will be expected to read at sight from books or articles in their specialized fields. It is not expected that the candidate recognize every word of the text. The examiners will supply occasional foreign terms, but it is presumed that the student knows sufficient grammar to recognize inflectional forms.

2. The student is asked to bring to the examination books or periodicals to the amount of about 400 to 500 pages, from which the examiners will select a number of paragraphs for the reading test.

3. No penalty is attached to failure in the examination, and the unsuccessful candidate is free to try again at the next date set for these tests.

4. Graduate students expecting to take the examination are asked to register their names in the Graduate School office at least three days prior to the test. *Examinations are held in the Seminar room, Library building, on the first Wednesdays in February, June, and October, at 2 p. m.*

## GRADUATE FEES

The fees paid by graduate students are as follows:

A matriculation fee of $10.00. This is paid once only, upon admission to the Graduate School.

A fixed charge, each semester, at the rate of $4.00 per semester credit hour.

A diploma fee (Master's degree), $10.00.

A graduation fee, including hood (Doctor's degree), $20.00.

## FELLOWSHIPS AND ASSISTANTSHIPS

**Fellowships.** A number of fellowships have been established by the University. A few industrial fellowships are also available in certain departments. The stipend for University fellows is $400 for the academic year and the remission of all graduate fees except the diploma fee.

Application blanks for University fellowships may be obtained from the office of the Graduate School. The application, with the necessary credentials, is sent by the applicant directly to the Dean of the Graduate School.

Fellows are required to render minor services prescribed by their major departments. The usual amount of service required does not exceed twelve clock hours per week. Fellows are permitted to carry a full graduate program, and they may satisfy the residence requirement for higher degrees in the normal time.

The selection of fellows is made by the departments to which the fellowships are assigned, with the approval of the dean or director concerned, but all applications must first be approved by the Dean of the Graduate School. The awards of University fellowships are on a competitive basis.

**Teaching and Research Assistantships.** A number of teaching and research assistantships are available in several departments. The stipend for assistantships varies with the services rendered, and the amount of graduate work which an assistant is permitted to carry is determined by the head of the department, with the approval of the dean or director concerned.

The compensation for each of a number of assistantships is $800 a year. The assistant in this class devotes one-half of his time to instruction or research in connection with Experiment Station projects, and he is required to spend two years in residence for the Master's degree. If he continues in residence for the Doctor's degree he is allowed two-thirds residence credit for each academic year at this University. The minimum residence requirement from the Bachelor's degree, therefore, may be satisfied in four academic years and one summer, or three academic years and three summers of eleven or twelve weeks.

No minimum residence requirement for a higher degree has been established for other assistants. The Graduate Council, guided by the recommendation of the student's advisory committee, prescribes the required residence in each individual case at the time the student is admitted to candidacy.

All graduate fees except the diploma fee are remitted to all assistants, provided they are in full graduate status and are carrying programs leading directly to an academic higher degree.

Further information regarding assistantships may be obtained from the departments or colleges concerned.

## COMMENCEMENT

Attendance is required at the commencement at which the degree is conferred, unless the candidate is excused by the Dean and the President of the University.

## SUMMER SESSION

WILLARD S. SMALL, *Director*

A Summer Session of six weeks is conducted at College Park. The program serves the needs of the following classes of students: (1) teachers and supervisors of the several classes of school work—elementary, secondary, vocational, and special; (2) regular students who are candidates for degrees; (3) graduate students; (4) special students not candidates for degrees.

### Terms of Admission

The admission requirements for those who desire to become candidates for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the College or School in which he wishes to secure the degree. Teachers and special students not seeking a degree are admitted to the courses of the summer session for which they are qualified. All such selection of courses must be approved by the Director of the Summer Session.

### Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. In the summer session, a course meeting five times a week for six weeks and requiring the standard amount of outside work has a value of two semester hours.

Appropriate educational courses satisfactorily completed will be credited by the State Department of Education towards satisfying certification requirements of all classes.

### Summer Graduate Work

For persons wishing to do graduate work towards an advanced degree in the summer sessions, special arrangements are made supplementing the regular procedure. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements as to admission, credits, scholarship, and examinations as do students enrolled in the other sessions of the University.

*For detailed information in regard to the Summer Session consult the special Summer Session announcement, issued annually in April.*

# DEPARTMENT OF MILITARY SCIENCE AND TACTICS

ALVAN C. GILLEM, JR., *Major Infantry, U. S. Army, Professor*

## RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Army Regulations No. 145-10, War Department.

### Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended.

### Organization

The unit is organized as a regiment of three battalions of three rifle companies each, and a band. All units are commanded by Advanced Course students, who have been selected for these commands on a basis of merit. The course of instruction is divided into two parts: the Basic Course and the Advanced Course.

### Objectives

### *Basic Course

The object of this course is to afford to students enjoying the privileges of State and Federal aided education an opportunity to be trained for positions involving leadership, within either the State or the nation. To this end the methods employed are designed to fit men mentally, physically, and morally for pursuits of peace or, if necessity requires, for national defense. A member of the R.O.T.C. is not in the Army of the United States, and membership in the unit carries no legal obligation to serve in the Army, or any of the armed forces.

### **Advanced Course

The primary object of the Advanced Course is to provide military instruction and systematic training through the agency of civil educational institutions to selected students, to the end that they may qualify as reserve officers in the military forces of the United States. It is intended to attain this objective during the time the students are pursuing their general or professional studies, thus causing minimum interference to the preparatory requirements of their projected civil careers.

A student prior to enrollment in this course must have satisfactorily completed the basic course and must have indicated in writing his desire to undertake the course. The applicant further must obtain on this document the recommendation of both the Dean of his College and the Professor of Military Science and Tactics, and submit same to the President of the Institution for approval. No student will be enrolled in the Advanced Course without the approval of the President of the University.

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* Required of qualified students.

** Elective for qualified students.

### Time Allotted

For first and second years, basic course, three periods a week of not less than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced course, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

### Physical Training

Physical training forms an important part of military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus coöperating in an effort to promote a vigorous manhood.

### Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

### Uniforms

Members of the Reserve Officers' Training Corps must appear in proper uniform at all military formations and at such other times as the Professor of Military Science and Tactics may designate with the approval of the President of the University.

Uniforms, or commutation in lieu of uniforms, for the Reserve Officers' Training Corps, are furnished by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features; or, if commutation of uniforms is furnished, then such uniforms as may be adopted by the University. Such uniforms must be kept in good condition by the students. They remain the property of the Government; and, though intended primarily for use in connection with military instruction, may be worn at other times unless the regulations governing their use are violated. The uniform will not be worn in part nor used while the wearer is engaged in athletic sports other than those required as a part of the course of instruction. A Basic Course uniform which is furnished to a student by the Government will be returned to the Military Department at the end of the year; or before, if a student severs his connection with the Department. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the student upon completion of two years' work.

## Commutation

Students who elect the Advanced Course and who have signed the contract with the Federal Government to continue in the Reserve Officers' Training Corps for the two remaining years of the Course are entitled to a small per diem money allowance, for commutation of subsistence, payable quarterly from and including the date of contact, until they complete the course at the institution.

## Summer Camps

An important and excellent feature of the Reserve Officers' Training Corps is the summer camp. In specially selected parts of the country, camps are held for a period not exceeding six weeks for students who are members of the Advanced Course Reserve Officers' Training Corps. These camps are under the close and constant supervision of army officers, and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy recreation are the keynote to contentment. Social life is not neglected, and the morale branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for students who are taking the advanced course, which, as has been previously stated, is elective.

Students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Clothing, quarters, and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid sixty cents ($0.60) for each day spent in camp. To obtain credit for camp a student must be in attendance at camp at least 85 per cent of the prescribed camp period.

## Commissions

(a) Each year, upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

(c) The University of Maryland has received a rating from the War Department of "Generally Excellent" for the past several years. This rating indicates that the work of its R. O. T. C. unit has been recognized by the Federal Government as being of a superior order. The "Generally Excellent" rating supersedes the former designation of "Distinguished College," which designation has been discontinued by the War Department for institutions such as this University.

## Credits

Military instruction at this University is on a par with other university work, and the requirements of this department as to proficiency the same as those of other departments.

Students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive such credit as the professor of military science and tactics and the President may jointly determine.

## PHYSICAL EDUCATION, RECREATION, AND ATHLETICS

The purpose of the program of physical education at the University is broadly conceived as the development of the individual student. To accomplish this purpose, physical examinations and classification tests are given the incoming students to determine the relative physical fitness of each. Upon the basis of the needs disclosed by these tests, and individual preferences, students are assigned to the various activities of the program.

Freshmen and sophomores assigned to physical education take three activity classes each week throughout the year. In the fall, soccer, touch football, and tennis are the chief activities; in the winter, basketball, volley ball, and other team games; and in the spring, track, baseball, and tennis. In addition to these team activities, sophomore students may elect a considerable number of individual sports, such as fencing, boxing, wrestling, horseshoes, ping pong, bag punching, and the like.

An adequate program of intramural sports is conducted, also. Touch football and soccer in the fall, basketball and volleyball in the winter, baseball and track in the spring, are the chief activities in this program. Cups, medals, and appropriate awards in all tournaments of the program are provided for the winning teams and individual members.

Every afternoon of the school session the facilities of the Physical Education Department are thrown open to all students for free unorganized recreation. Touch football, soccer, basketball, basket shooting, apparatus work, fencing, boxing, wrestling, bag punching, tennis, badminton, and ping pong are the most popular contests sponsored.

The University is particularly fortunate in its possession of excellent facilities for carrying on the activities of the program of physical education. A large modern gymnasium, a new field house, a number of athletic fields, tennis courts, baseball diamonds, running tracks, and the like, and an athletic plant provided solely for the program of physical education conducted for the girls, constitute the major part of the equipment.

In addition to the activities described above, the University sponsors a full program of intercollegiate athletics for men. Competition is promoted in varsity and freshman football, basketball, baseball, track, boxing, lacrosse, and tennis, which are all major sports of this program. The University is a member of the Southern Conference, the National Collegiate Athletic Association, and other national organizations for the promotion of amateur athletics.

The University also maintains curricula designed to train men and women students to teach physical education and coach in the high schools of the State.

*For a description of the courses in Physical Education, see College of Education, and Section III, Description of Courses.*

## SCHOOL OF DENTISTRY

J. Ben Robinson, *Dean.*

### Faculty Council

George M. Anderson, D.D.S., F.A.C.D.
Robert P. Bay, M.D., F.A.C.S.
Oren H. Gaver, D.D.S., F.A.C.D.
Burt B. Ide, D.D.S., F.A.C.D.
Howard J. Maldeis, M.D.
Robert L. Mitchell, Phar.D., M.D.
Alexander H. Paterson, D.D.S., F.A.C.D.
J. Ben Robinson, D.D.S., F.A.C.D.
Leo A. Walzak, D.D.S.

### HISTORY

The University of Maryland was created by an act of the Maryland Legislature, January 20, 1808, for the purpose of offering a course of instruction in medical science. There were at that date but four medical schools in America—the University of Pennsylvania, founded in 1765; Columbia University, College of Physicians and Surgeons, in 1767; Harvard University, in 1782; and Dartmouth College, in 1797.

The first lectures on dentistry in America were delivered by Dr. Horace H. Hayden in the University of Maryland, School of Medicine, between the years 1821 and 1825. These lectures were interrupted in 1825 by internal dissension in the School of Medicine but were continued in the year 1837. It was Dr. Hayden's idea that dentistry merited greater attention than had been given it by medical instruction, and he undertook to develop this specialty as a branch of medicine. With this thought in mind he, with the support of Dr. Chapin A. Harris, appealed to the Faculty of Physic of the University of Maryland for the creation of a department of dentistry as a part of the medical curriculum. The request having been refused, an independent college was decided upon. A charter was applied for and granted by the Maryland Legislature February 1, 1840. The first faculty meeting was held February 3, 1840, at which time Dr. H. H. Hayden was elected President and Dr. C. A. Harris, Dean. The introductory lecture was delivered by Dr. Harris on November 3, 1840, to the five students matriculated in the first class. Thus was the Baltimore College of Dental Surgery, the first and oldest dental school in the world, created as the foundation of the present dental profession.

In 1873, the Maryland Dental College, an offspring of the Baltimore College of Dental Surgery, was organized and continued instruction in dental subjects until 1879, at which time it was consolidated with the Baltimore College of Dental Surgery. A department of dentistry was organized at the University of Maryland in the year 1882, graduating a class each year from 1883 to 1923. This school was chartered as a corporation and continued as a privately owned and directed institution until 1920, when it became a State institution. The Dental Department of the Baltimore Medical College was established in 1895, continuing until 1913, when it merged with the Dental Department of the University of Maryland.

The final combining of the dental educational interests of Baltimore was effected June 15, 1923, by the amalgamation of the student bodies of the Baltimore College of Dental Surgery and the University of Maryland, School of Dentistry, the Baltimore College of Dental Surgery becoming a distinct department of the State University under State supervision and control. Thus we find in the Baltimore College of Dental Surgery, Dental School, University of Maryland, a merging of the various efforts at dental education in Maryland. From these component elements have radiated developments of the art and science of dentistry until the strength of its alumni is second to none either in number or degree of service to the profession.

## BUILDINGS

The School of Dentistry now occupies its new building at the northwest corner of Lombard and Greene Streets, adjoining the University Hospital, being so situated that it offers opportunity for abundant clinic material. The new building provides approximately 45,000 square feet of floor space, is fire proof, and is ideally lighted and ventilated. A sufficient number of large lecture rooms and classrooms, a library and reading room, science laboratories, technic laboratories, clinic rooms, locker rooms, etc., are provided. The building is furnished with new equipment throughout with every accommodation necessary for satisfactory instruction under comfortable arrangements and pleasant surroundings. The large clinic wing accommodates one hundred and thirty-nine chairs. The following clinic departments have been provided: Operative, Prosthetic (including Crown and Bridge and Ceramics), Anesthesia and Surgery, Pathology, Orthodontia, Pedodontia, Radiodontia, and Photography. Modern units with electric engines have been installed in all clinics, while provision has been made for the use of electric equipment in all technic laboratories.

## PRE-DENTAL REQUIREMENT

The Faculty Council of the School of Dentistry has formally voted to advance its pre-dental requirement from one year to two years of collegiate training. This rule will become effective at the opening of the regular session 1936-1937.

All students now enrolled in the pre-dental year, or the first year of the five-year course at the School of Dentistry, University of Maryland, and who may successfully complete its requirements, will be promoted at the end of the year to the first year of the four-year dental course, or the second year of what is now scheduled in the catalogue as the five-year course.

Applicants for admission to the first year of the Dental School who present thirty semester hours of credit from a recognized college or university may be admitted to the four-year dental course for the regular session 1935-1936.

Students who desire to practice in states requiring two years of collegiate preparation and who have to their credit, at the opening of the 1935-1936 session, one year will be required to do an additional year of college work to become eligible to enter the 2-4 course in the Dental School, University of Maryland, in the fall of 1936.

Students graduating from high school in 1935 have no option but to take two years of college work before admission to the School of Dentistry, University of Maryland.

### Requirements for Matriculation

The requirement for admission is graduation from an accredited high or preparatory school which requires for graduation not less than 15 units of high-school work obtained in a four-year course or its equivalent. *(See note.) In case an applicant is not a graduate of a high or preparatory school, as defined above, the full equivalent of such education in each individual case must be established and attested by the highest public educational officer of the State.

**Required:** English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total 7 units.

**Elective:** Agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group.

All applicants must present their credentials for verification to the Registrar of the University of Maryland. A blank form for submitting credentials may be had by applying to the office of the Dean. The form must be filled out in full with names of *all* schools attended, signed by the applicant and returned to the Registrar's office with two dollars investigation fee. The applicant should not send diplomas or certificates. The Registrar of the University of Maryland will secure all necessary credentials after the application has been received. One should not make application unless reasonably certain that preparation is sufficient, or unless intending to complete preparation if insufficient. Ample time should be allowed for securing credentials and investigating schools. If the applicant qualifies for the study of the profession, a certificate will be issued; otherwise, notice will be given concerning whatever deficiency exists.

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* Required (7), and Elective (8), units for entrance. Total 15 units.

Every applicant for admission must present certificate of recommendation from principal of high school from which the applicant has graduated.

### Advanced Standing and Transfers

Students who present in addition to high school requirements credit in academic subjects appearing in the first and second years of the dental course will be allowed credit for all such subjects, provided such credits are the full equivalent of such subjects offered in the College of Arts and Sciences of the University of Maryland.

Applicants presenting thirty or more semester hours of academic work in an acceptable college or university which meets the minimum requirement fixed for admission by the Dental Educational Council of America will be given standing in the second year, and may complete the dental course in four years.

Applicants desiring to transfer from another recognized dental school must show record of creditable scholarship in all years previously devoted to the study of dentistry. No applicant carrying conditions or failures in any year of his previous dental instruction will be considered. All records must show an average grade of 80% or over. Applicants whose records show habitual failures and conditions will not be considered for admission. The transferring student must satisfy the preliminary educational requirement outlined under "Requirements for Matriculation."

### Attendance Requirements

In order to receive credit for a full session, each student must have entered and be in attendance on the day the Regular Session opens, at which time lectures to all classes begin, and remain until the close of the session, the dates for which are announced in the Calendar of the Annual Catalogue.

Regular attendance is demanded. Students with less than eighty-five per cent. attendance in any course will be denied the privilege of final examination in any and all such courses. In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than a minimum of eighty-five per cent. attendance will not be promoted to the next succeeding class.

In cases of serious personal illness, as attested by a physician, students may register not later than the twentieth day following the advertised opening of the Regular Session. Students may register and enter not later than ten days after the beginning of the session, but such delinquency will be charged as absence from the class.

### Promotion

To be promoted to the next succeeding year a student must have passed courses amounting to at least 80 per cent. of the total schedule hours of the year, and must have an average of 80 per cent. on all subjects passed.

A grade of 75 per cent. is passing. A grade between 60 per cent. and passing is a condition. A grade below 60 per cent. is a failure. A condition may be removed by a re-examination. In such effort, failure to make a passing mark is recorded as a failure in the course. A failure can be removed only by repeating the course. A student with combined conditions and failures amounting to 40 per cent. of the schedule hours of the year will not be permitted to proceed with his class. Students carrying conditions will not be admitted to senior standing; students in all other classes may carry one condition to the next succeeding year. All conditions and failures must be removed within twelve months from the time they were incurred.

### Equipment

A complete list of all necessary instruments and materials for technic and clinic courses and text books for lecture courses will be announced for the various classes. Each student will be required to provide himself with whatever is necessary to meet the needs of his course and present same to responsible class officer for inspection. No student will be permitted to go on with his class who does not meet this requirement.

### Deportment

The profession of dentistry demands, and the School of Dentistry requires evidence of good moral character of its students. The conduct of the student in relation to his work and fellow students will indicate his fitness to be taken into the confidence of the community as a professional man. Integrity, sobriety, temperate habits, truthfulness, respect for authority and associates, and honesty in the transaction of business affairs as a student will be considered as evidence of good moral character necessary to granting a degree.

### Requirements for Graduation

The degree of Doctor of Dental Surgery is conferred upon a candidate who has fully met the following conditions:

1. Documentary evidence that he has attained the age of 21 years.

2. A candidate for graduation shall have attended at least a full five-year course of study, the first year of which shall include 30 semester hours of college work as outlined in the course of study in force in this school, or must present one full year of college work for admission and four years study in the dental curriculum, the last year of which shall have been spent in this institution.

3. He will be required to show a general average of 80 per cent. during the full course of study.

4. He shall have satisfied all technic and clinic requirements of the various departments.

5. He shall have paid all indebtedness to the college prior to the beginning of final examinations, and must have adjusted his financial obligations in the community satisfactorily to those with whom he may be indebted.

### Fees

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| Application fee (paid at time of filing formal application for admission) | $2.00 |
| Matriculation fee (paid at time of enrollment) | 10.00 |
| Tuition for the session, resident student | 250.00 |
| Tuition for the session, non-resident student | 300.00 |
| Dissecting fee (first semester, sophomore year) | 15.00 |
| Laboratory fee (each session) | 20.00 |
| Locker fee—freshman, sophomore, and pre-junior years (first semester) | 3.00 |
| Locker fee—junior and senior years (first semester) | 5.00 |
| Laboratory breakage deposit—freshman, sophomore, and pre-junior years (first semester) | 5.00 |
| Graduation fee (paid with second semester fees of senior year) | 15.00 |
| Penalty fee for late registration | 5.00 |
| Examinations taken out of class and re-examinations | 5.00 |
| One certified transcript of record will be issued to each student free of charge. Each additional copy will be issued only on payment of | 1.00 |

Matriculation fee must be paid prior to September 16.

The registration of a student in any school or college of the University shall be regarded as a registration in the University of Maryland, but when such student transfers to a Professional School of the University or from one Professional School to another, he must pay the usual matriculation fee required by each Professional School.

A student who neglects or fails to register prior to or within the day or days specified for his school, will be called upon to pay a fine of $5.00. The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins, following the specified registration period. (This rule may be waived only on the written recommendation of the Dean.)

Each student is required to fill in a registration card for the office of the Registrar, and pay to the Comptroller one-half of the tuition fee in addition to all other fees noted as payable first semester before being admitted to class work at the opening of the session. The balance of tuition and second semester fees must be in the hands of the Comptroller on the registration day for the second semester.

According to the policy of the Dental School no fees will be returned. In case the student discontinues his course, any fees paid will be credited to a subsequent course, but are not transferable.

The above requirements will be rigidly enforced.

### Definition of Residence and Non-Residence

Students who are minors are considered to be resident students if, at the time of their registration their parents* have been residents of this State for at least one year.

Adult students are considered to be resident students if, at the time of their registration, they have been residents of this State for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this State by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

### Summer Courses

Aside from and independent of the regular session, special courses are offered during the summer recess. The course in clinical instruction is conducted from June 1 to August 1 and from September 1 to 20 inclusive. The course is open only to students registered in the college. It offers opportunities to students carrying conditions in clinic from the preceding session as well as those who desire to gain more extended practice during their training period. The clinics are under the direction of capable demonstrators, full credit being given for all work done.

### The Gorgas Odontological Society

The Gorgas Odontological Society was organized in 1914 as an honorary student dental society with scholarship as a basis for admission. The society is named after Dr. Ferdinand J. S. Gorgas, a pioneer in dental education, a teacher of many years experience, and during his life a great contributor to dental literature. It was with the idea of perpetuating his name that the society adopted it.

Students become eligible for membership at the beginning of their junior year if, during their preceding years of the dental course, they have attained a general average of 85 per cent. or more in all of their studies. Meetings are held once each month, and are addressed by prominent dental and medical men, an effort being made to obtain speakers not connected with the University. The members have an opportunity, even while students, to hear men associated with other educational institutions.

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* The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of or stand in loco parentis to such minor students.

### Omicron Kappa Upsilon

Phi Chapter of Omicron Kappa Upsilon honorary dental fraternity was chartered at the Baltimore College of Dental Surgery, Dental School, University of Maryland, during the session of 1928-1929. Membership in the fraternity is awarded to a number not exceeding twelve per cent. of the graduating class. This honor is conferred upon students who through their professional course of study creditably fulfill all obligations as students, and whose conduct, earnestness, and evidence of good character and high scholarship recommend them to election.

### Scholarships

A number of scholarships from various organizations and educational foundations have been available to students in the School of Dentistry. These scholarships are offered on the basis of excellence in scholastic attainment and the need on the part of students for assistance in completing their course in dentistry. It has been the policy of the Faculty to recommend only students in the last two years for such privileges.

*The Henry Strong Educational Foundation*—From this fund, established under the will of General Henry Strong, of Chicago, an annual allotment is made to the Baltimore College of Dental Surgery, Dental School, University of Maryland, for loans available for the use of young men and women students under the age of twenty-five. Recommendations for the privileges of these loans are limited to students in the junior and senior years. Only students who through stress of circumstances require financial aid and who have demonstrated excellence in educational progress are considered in making nominations to the secretary of this fund.

*The Edward S. Gaylord Educational Endowment Fund*—Under a provision of the will of the late Dr. Edward S. Gaylord, of New Haven, Conn., an amount approximating $16,000 was left to the Baltimore College of Dental Surgery, Dental School, University of Maryland, the proceeds of which are to be devoted to aiding worthy young men in securing dental education.

### Alumni Association

The first annual meeting of the Society of the Alumni of the Baltimore College of Dental Surgery was held in Baltimore, March 1, 1849. This organization has continued in existence to the present, its name having been changed to The National Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland.

## THE SCHOOL OF LAW

Roger Howell, *Dean*

### THE FACULTY COUNCIL

Hon. Henry D. Harlan, A.M., LL.B., LL.D.
Randolph Barton, Jr., Esq., A.B., LL.B.
Edwin T. Dickerson, Esq., A.M., LL.B.
Charles McHenry Howard, Esq., A.B., LL.B.
Hon. Morris A. Soper, A.B., LL.B.
Hon. W. Calvin Chesnut, A.B., LL.B.
G. Ridgely Sappington, Esq., LL.B.
Roger Howell, Esq., A.B., Ph.D., LL.B.
Edwin G. W. Ruge, Esq., A.B., LL.B.
A. J. Casner, A.B., LL.B.
G. Kenneth Reiblich, A.B., Ph.D., J.D.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. The institution thus established was suspended in 1836 for lack of proper pecuniary support. In 1869 the School of Law was reorganized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive, and the staff of instructors increased in number. Its graduates now number more than three thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School has been recognized by the Council of the Section of Legal Education of the American Bar Association as meeting the standards of the American Bar Association, and has been placed upon its approved list.

The Law School is a member of the Association of American Law Schools, an association composed of the leading law schools in the United States, member schools being required to maintain certain high standards relating to entrance requirements, faculty, library, and curriculum.

The Law School is also registered as an approved school on the New York Regents' list.

The new Law School Building, erected in 1931, is located at Redwood and Greene Streets in Baltimore. In addition to classrooms and offices for the Law faculty, it contains a large auditorium, practice-court room, students' lounge and locker rooms, and the law library, the latter containing a collection of carefully selected text-books, English and American reports, leading legal periodicals, digests, and standard encyclopedias. No fee is charged for the use of the library, which is open from 9.00 A. M. to 10.30 P. M., except on Saturday, when it closes at 5.00 P. M.

### Course of Instruction

The School of Law is divided into two divisions, the Day School and the Evening School. The same curriculum is offered in each school, and the standards of work and graduation requirements are the same.

The Day School course covers a period of three years of thirty-two weeks each, exclusive of holidays. The class sessions are held during the day, chiefly in the morning hours. The Practice Court sessions are held on Monday evenings from 8.00 to 10.00 P. M.

The Evening School course covers a period of four years of thirty-six weeks each, exclusive of holidays. The class sessions are held on Monday, Wednesday, and Friday evenings of each week from 6.30 to 9.30 P. M. This plan leaves the alternate evenings for study and preparation by the student.

The course of instruction in the School of Law is designed thoroughly to equip the student for the practice of his profession when he attains the Bar. Instruction is offered in the various branches of the common law, of equity, of the statute law of Maryland, and of the public law of the United States. The course of study embraces both the theory and practice of the law, and aims to give the student a broad view of the origin, development, and function of law, together with a thorough practical knowledge of its principles and their application. Analytical study is made of the principles of substantive and procedural law, and a carefully directed practice court enables the student to get an intimate working knowledge of procedure.

Special attention is given to the statutes in force in Maryland, and to any peculiarities of the law in that State, where there are such. All of the subjects upon which the applicant for the Bar in Maryland is examined are included in the curriculum. But the curriculum includes all of the more important branches of public and private law, and is well designed to prepare the student for admission to the Bar of other States.

### Requirements for Admission

The requirements for admission are those of the Association of American Law Schools. Applicants for admission as candidates for a degree are required to produce evidence of the completion of at least two years of college work; that is, the completion of at least one-half the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study by the University of Maryland or other principal college or university in this State.

To meet this requirement, a candidate for admission must present at least sixty semester hours (or their equivalent) of college work taken in an institution approved by standard regional accrediting agencies and exclusive of credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value. Such pre-legal work must be done in residence, and no credit is allowed for work done in correspondence or extension courses.

In compliance with the rules of the Association of American Law Schools, a limited number of special students, not exceeding 10 per cent of the average number of students admitted as beginning regular law students during the two preceding years, applying for admission with less than the academic credit required of candidates for the law degree, may be admitted as candidates for the certificate of the school, but not for the degree, where, in the opinion of the Faculty Council, special circumstances, such as the maturity and apparent ability of the student, seem to justify a deviation from the rule requiring at least two years of college work. Such applicants must be at least twenty-three years of age and specially equipped by training and experience for the study of law.

### Combined Program of Study Leading to the Degrees of Bachelor of Arts and Bachelor of Laws

The University offers a combined program in arts and law leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. The fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent work in the Evening School, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 100.

### Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in an approved law school, may, in the discretion of the Faculty Council, upon presentation of a certificate from such law school showing an honorable dismissal therefrom, and the successful completion of equivalent courses therein, covering at least as many hours as are required for such subjects in this school, receive credit for such courses and be admitted to advanced standing. No credit will be given for study pursued in a law office, and no degree will be conferred until after one year of residence and study at this school.

### Fees and Expenses

The charges for instruction are as follows:

| | |
|---|---|
| Registration fee to accompany application | $ 2.00 |
| Matriculation fee, payable on first registration | 10.00 |
| Diploma fee, payable upon graduation | 15.00 |
| Locker fee | 3.00 |

Tuition fee, per annum:

| | |
|---|---|
| Day School | $200.00 |
| Evening School | 150.00 |

An additional tuition fee of $50.00 per annum must be paid by students who are non-residents of the State of Maryland.

The tuition fee is payable in two equal instalments, one-half at the time of registration for the first semester, and one-half at the time of registration for the second semester.

Further information and a special catalogue of the School of Law may be had upon application to the School of Law, University of Maryland, Redwood and Greene Streets, Baltimore, Md.

## THE UNIVERSITY OF MARYLAND
## SCHOOL OF MEDICINE
## AND
## COLLEGE OF PHYSICIANS AND SURGEONS

J. M. H. ROWLAND, *Dean*

### MEDICAL COUNCIL

ARTHUR M. SHIPLEY, M.D., Sc.D.
WILLIAM S. GARDNER, M.D.
JULIUS FRIEDENWALD, A.M., M.D.
J. M. H. ROWLAND, M.D.
ALEXIUS MCGLANNAN, A.M., M.D., LL.D
HUGH R. SPENCER, M.D.
H. BOYD WYLIE, M.D.
CARL L. DAVIS, M.D.
MAURICE C. PINCOFFS, S.B., M.D.
FRANK W. HACHTEL, M.D.
EDWARD UHLENHUTH, Ph.D.
CLYDE A. CLAPP, M.D.
JOHN C. KRANTZ, JR., Ph.D.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in the United States.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837); and here were first installed independent chairs for the teaching of diseases of women and children (1867), and of eye and ear diseases (1873).

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

### Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September, 1823, and at that time consisted of four wards, one of which was reserved for eye cases.

Besides its own hospital, the School of Medicine has control of the clinical facilities of the Mercy Hospital, in which were treated last year 25,881 persons.

In connection with the University Hospital, an outdoor obstetrical clinic is conducted. During the past year 1,422 cases were treated in the Lying In Hospital and outdoor clinic.

The hospital now has about 400 beds—for medical, surgical, obstetrical, and special cases; and furnishes an excellent supply of clinical material for third- and fourth-year students.

### Dispensaries and Laboratories

The dispensaries associated with the University Hospital and Mercy Hospital are organized on a uniform plan in order that teaching may be the same in each. Each dispensary has departments of Medicine, Surgery, Obstetrics, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, and Tuberculosis. All students in their junior year work two days of each week in one of these dispensaries; all students in the senior year work one hour each day; 138,944 cases were treated last year, which fact gives an idea of the value of these dispensaries for clinical teaching.

Laboratories conducted by the University purely for medical purposes are the Anatomical, Chemical, Experimental Physiology, Physiological Chemistry, Histology and Embryology, Pathology, Bacteriology and Immunology, Clinical Pathology, Pharmacology, and Operative Surgery.

### Prizes and Scholarships

The following prizes and scholarships are offered in the School of Medicine. (For details see School of Medicine Bulletin.)

Faculty Medal; Dr. A. Bradley Gaither Prize; The Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarships; The Randolph Winslow Scholarship; The University Scholarships; The Frederica Gehrmann Scholarship; The Dr. Leo Karlinsky Memorial Scholarship; The Clarence and Genevra Warfield Scholarships; Israel and Cecelia A. Cohen Scholarships.

### Requirements for Admission

Admission to the curriculum in medicine is by a completed Medical Student Certificate issued by the Registrar of the University of Maryland, Baltimore, Maryland. This certificate is obtained on the basis of satisfactory credentials, or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student's Certificate are as follows:

(a) The completion of a standard four-year high school course or the equivalent, and in addition:

*(b) Two years, sixty semester hours of basic college credits, including chemistry, biology, physics, modern foreign language, and English, and exclusive of Military Drill or Physical Education as outlined in the Pre-Medical Curriculum, or its equivalent, will meet the minimum requirement for admission. Students are strongly recommended, however, to complete the three-year pre-medical curriculum of 99 semester hours before making application for admission.

Women are admitted to the School of Medicine of this University.

### Expenses

The following are the fees for students in the School of Medicine:

| *Matriculation* | *Resident—Non-Resident* | | *Laboratory* | *Graduation* |
|---|---|---|---|---|
| $10.00 (only once) | $375.00 | $550.00 | $25.00 (yearly) | $15.00 |

Estimated living expenses for students in Baltimore:

| *Items* | *Low* | *Average* | *Liberal* |
|---|---|---|---|
| Books | $50 | $75 | $100 |
| College Incidentals | 20 | 20 | 20 |
| Board, eight months | 200 | 250 | 275 |
| Room rent | 64 | 80 | 100 |
| Clothing and Laundry | 50 | 80 | 150 |
| All other expenses | 25 | 50 | 75 |
| Total | $409 | $556 | $720 |

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* For admission to the Pre-Medical Curriculum the requirements are the same as for the freshman class in the College of Arts and Sciences of the University with the prescribed addition of two years of one foreign language. (See Section I, "Entrance.")

# SCHOOL OF NURSING

ANNIE CRIGHTON, R.N., *Director and Superintendent of Nurses*

The University of Maryland School of Nursing was established in the year 1889. Since that time it has been an integral part of the University of Maryland Hospital.

The school is non-sectarian, the only religious services being morning prayers.

The University of Maryland Hospital is a general hospital containing about 400 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing, including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by well-qualified instructors and members of the medical staff of the University.

## Programs Offered

The program of study of the School is planned for two groups of students: (a) The three-year group; (b) the five-year group.

## Requirements for Admission

A candidate for admission to the School of Nursing must be a graduate of an accredited high school or other recognized preparatory school, and must present record showing that she has completed satisfactorily the required amount of preparatory study. Preference will be given to students who rank in the upper third of the graduating class in their respective preparatory schools.

Candidates are required to present 15 units for entrance: Required (7), and Elective (8).

Required: English (I, II, II, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective: Astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high school or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group, of which not more than four units may pertain to vocational subjects.

In addition to the above, students must meet certain other definite requirements in regard to health, age, and personal fitness for nursing work.

The preferable age for students registering for the three-year course is 20 to 35 years, although students may be accepted at the age of 18. Women of superior education and culture are given preference, provided they meet the requirements in other particulars. If possible, a personal interview with the Director of the School should be arranged on Tuesday or Friday from 11:00 A. M. to 12:00 M.

Blank certificates will be furnished upon application to the Director of the School of Nursing, University of Maryland Hospital, Baltimore, Maryland.

## Registration With Maryland State Board of Examiners of Nurses

By regulation of the Maryland State Board of Examiners of Nurses, all students entering schools of nursing in Maryland must, at the beginning of their course, register with the Board in order to be eligible for examination and license on completion of this course. Blanks necessary for this purpose will be sent with application forms. A fee of $2 is charged for registration.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation are left to the decision of the Director of the School. Misconduct, disobedience, insubordination, inefficiency, or neglect of duty are causes for dismissal at any time by the President of the University.

The requirements for admission to the five-year program of the School of Nursing are the same as for other colleges. (Special catalogue will be sent upon request.) The three-year program is designed to meet the requirements for the diploma in Nursing and comprises the work of the first, second, and third hospital years.

## Admission to the School

Students for the spring term are admitted in February and those for the fall term in September or October, and for the five-year course in September.

## Hours of Duty

During the preparatory period the students are engaged in class work for the first four months with no general duty in the hospital, and for the remainder of this period they are sent to the wards on eight-hour duty. During the first, second, and third years the students are on eight-hour day duty and nine-hour night duty with six hours on holidays and Sundays. The night-duty periods are approximately two months each with one day at the termination of each term for rest and recreation. The period of night duty is approximately five to six months during the three years.

The first four months of the preparatory period are devoted to theoretical instruction given entirely in the lecture and demonstration rooms of the training school, hospital, and medical school laboratories. The average number of hours per week in formal instruction, divided into lecture and laboratory periods, is 30 hours, and includes courses in Anatomy, Physiology, Cookery and Nutrition, Dosage and Solution, Hygiene, Bacteriology, Chemistry, Materia Medica, Practical Nursing, Bandaging, Ethics, and History of Nursing. During the last two months of the probation period the students are placed on duty in the hospital wards for instruction in bedside nursing, and are expected to perform the duties assigned to them by the Director of the School. At the close of the first semester the students are required to pass satisfactorily both written and practical tests; failure to do so will be sufficient reason for terminating the course at this point.

### Sickness

A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years, must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in that year, it will be necessary for her to continue her work with the next class.

### Vacations

Vacations are given between June and September. A period of four weeks is allowed the student at the completion of the first year and of the second year.

### Expenses

A fee of $50.00, payable on entrance, is required from each student. This will not be returned. A student receives her board, lodging, and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms, obtained through the hospital at a nominal cost. After being accepted as a student nurse she wears the uniform supplied by the hospital. The student is also provided with textbooks and shoes. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

## THREE-YEAR PROGRAM

### First Year

The first year is divided into two periods: the first semester, or the preparatory period (6 months), and the second semester.

### First Semester

In the first semester, or preparatory term, the student is given practical instruction in the following:

I. The making of hospital and surgical supplies, the cost of hospital material, apparatus, and surgical instruments.

II. Household economics and preparation of foods particularly applied to invalid cooking and nutrition.

During this term the practical work is done under constant supervision, and teaching is given correlatively.

Excursions are made to filtration and sewerage plants, markets, hygenic dairies, linen rooms, laundry, and store room.

At the close of the first half of the first year the students are required to pass satisfactorily both written and oral tests, and failure to do so will be sufficient reason for terminating the course at this point.

### Subsequent Course

The course of instruction, in addition to the first semester, or the preparatory period, occupies two and one-half years, and students are not accepted for a shorter period, except in special instances.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

Throughout the three years, regular courses of instruction and lectures are given by members of the medical and nursing school faculties.

### First Year

### Second Semester

During this period the students receive theoretical instruction in Massage, General Surgery, Urinalysis and Laboratory Methods, Diet in Disease, and Advanced Nursing Procedures.

Practical instruction is received in the male and female, medical, surgical, and children's wards.

### Second Year

During this period the theoretical instruction includes Pediatrics, General Medicine, Infectious Diseases, Obstetrics, Gynecology, Orthopedics, Skin and Venereal, Eye, Ear, Nose, and Throat, X-ray and Radium, and Dental. The practical work provides experience in the nursing of obstetrical and gynecological patients, in the operating rooms and the out-patient department.

### Third Year

Theoretical instruction includes Psychiatry, Public Sanitation, Professional Problems, and Survey of the Nursing Field.

During this period the student receives short courses of lectures on subjects of special interest. These include a consideration of the work of institutions, of public and private charities, of settlements, and of the various branches of professional work in nursing.

Experience is given in executive and administrative work for those showing exceptional ability in the Third Year. With these students conferences are held on administration and teaching problems.

### Attendance at Classes

Attendance is required at all classes. Absences are excused by the Director of the School only in case of illness or absence from the school.

### Examinations

These are both written and oral, and include practical tests. The standing of the student is based upon the general character of work throughout the year as well as the results of the examinations. Students must pass upon all subjects of each year before entering upon the work of the following year.

### Graduation

The diploma of the school will be awarded to those who have completed satisfactorily the full term of three years and have passed successfully the final examinations.

### Scholarships

One scholarship has been established by the Alumnae of the Training School, which entitles a nurse to a six-weeks course at Teachers College, Columbia University, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue post-graduate study and special work. There are two scholarships of the value of $50.00 each, known as the Edwin and Leander M. Zimmerman and the Elizabeth Collins Lee prizes. An Alumnae Pin is presented by the Woman's Auxiliary Board to a student who at the completion of three years shows marked executive ability. A prize of $25.00 is given by Mrs. John L. Whitehurst to a student who at the completion of three years shows exceptional executive ability.

### Five-Year Program

In addition to the regular three-year course of training the University offers a combined Academic and Nursing program leading to the degree of Bachelor of Science and a Diploma in Nursing.

The first two years of the course (or pre-hospital period), consisting of 68 semester hours, as shown on page 99 of this catalogue, are spent in the College of Arts and Sciences of the University, during which period the student has an introduction to the general cultural subjects which are considered fundamental in any college training. At least the latter of these two years must be spent in residence at College Park, in order that the student may have her share in the social and cultural activities of college life. The last three years are spent in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, which is also affiliated with the School of Medicine of the University. In the fifth year of the combined program certain elective courses such as Public Health Nursing, Nursing Education, Practical Sociology, and Educational Psychology are arranged.

### Degree and Diploma

The Diploma in Nursing will be awarded to those who have completed satisfactorily the three-years' program.

The degree of Bachelor of Science and the Diploma in Nursing are awarded to students who complete successfully the prescribed combined academic and nursing program.

# SCHOOL OF PHARMACY

A. G. Du Mez, *Dean*

### Faculty Council

A. G. Du Mez, Ph.G., B.S., M.S., Ph.D.
Glenn L. Jenkins, Ph.G., B.S., M.S., Ph.D.
E. F. Kelly, Phar.D.
Marvin R. Thompson, Ph.G., B.S., Ph.D.
J. Carlton Wolf, B.Sc., Phar.D.
B. Olive Cole, Phar.D., LL.B.
H. E. Wich, Phar.D.

The School of Pharmacy began its existence as the Maryland College of Pharmacy. The latter was organized in 1841, and operated as an independent institution until 1904, when it amalgamated with the group of professional schools in Baltimore then known as the University of Maryland. It became a department of the present University when the old University of Maryland was merged with the Maryland State College in 1920. With but one short intermission just prior to 1865, it has continuously exercised its function as a teaching institution.

### Location

The School of Pharmacy is located at Lombard and Greene Streets, in close proximity to the Schools of Medicine, Law, and Dentistry.

## AIMS AND PURPOSES

The School of Pharmacy provides systematic instruction in pharmacy, the collateral sciences, and such other subjects as are deemed to be essential in the education of a pharmacist. Its chief aim is to prepare its matriculants for the intelligent practice of dispensing pharmacy, but it also offers the facilities and instruction necessary for the attainment of proficiency in the practice of the other branches of the profession and in pharmaceutical research.

### Combined Curriculum in Pharmacy and Medicine

A combined curriculum has been arranged with the School of Medicine of the University by which students may obtain the degree of Bachelor of Science in Pharmacy and Doctor of Medicine in seven years. Students who successfully complete the first three years of the course in Pharmacy and an additional four semester hours in Zoology, and show that they are qualified by character and scholarship to enter the medical profession, are eligible for admission into the School of Medicine of the University; and upon the successful completion of the first two years of the medical course will be awarded the degree of Bachelor of Science in Pharmacy by the School of Pharmacy.

This privilege will be open only to students who maintain a uniformly good scholastic record during the first two years of the course in Pharmacy; and those who wish to avail themselves of it must so advise the School of Pharmacy before entering upon the work of the third year.

### Recognition

This school holds membership in the American Association of Colleges of Pharmacy. The object of the Association is to promote the interests of pharmaceutical education; and all institutions holding membership must maintain certain minimum requirements for entrance and graduation. Through the influence of this Association, uniform and higher standards of education have been adopted from time to time; and the fact that several States by law or by Board ruling recognize the standards of the Association is evidence of its influence.

The school is registered in the New York Department of Education, and its diploma is recognized in all States.

## REQUIREMENTS FOR ADMISSION

The requirement for admission is graduation from an accredited high or preparatory school which requires for graduation in a four-year course not less than 15 units of high-school work grouped as shown below. In case an applicant is not a graduate of a high or preparatory school, as defined above, the full equivalent of such education in each individual case must be established and attested by the highest public educational officer of the State.

UNITS FOR ENTRANCE: Required (7), elective (8), total (15).

REQUIRED: English, (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total 7 units.

ELECTIVE: Agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group.

An application blank for admission may be had by applying to the office of the Dean. The form must be filled out in full with names of *all* schools attended, signed by the applicant and returned to the Registrar's office with two dollars investigation fee. Do not send diplomas or certificates. The Registrar of the University of Maryland will secure all necessary credentials after the application has been received. Do not make application unless reasonably certain that preparation is sufficient, or unless intending to complete preparation if insufficient. Ample time should be allowed for securing credentials and investigating schools. If the applicant qualifies for the study of the profession, a certificate will be issued.

## REQUIREMENTS FOR ADVANCED STANDING

Students who present in addition to high-school requirements credit for subjects taken in schools of pharmacy holding membership in the American Association of Colleges of Pharmacy will be given credit for corresponding courses of equal length and content scheduled for the first three years of the course, provided they present a proper certificate of honorable dismissal.

Credit for general educational subjects will be given to students presenting evidence of having completed work equal in value to that outlined in this catalogue.

Transferring students in either case must satisfy the preliminary educational requirements outlined under "Requirements for Admission."

## SPECIAL STUDENTS

An applicant who cannot furnish sufficient entrance credit and who does not care to make up the units in which he is deficient may enter as a special student and pursue all the branches of the curriculum, but will not be eligible for graduation and will not receive a diploma. The School of Pharmacy reserves the right to decide whether or not the preliminary training of the applicant is sufficient.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Science in Pharmacy (B. S. in Pharm.) must be of good moral character, and must have completed all of the prescribed work for that degree.

The work of the last year must be taken in this School.

The requirements for higher degrees are stated in the Graduate School Bulletin.

## MATRICULATION AND REGISTRATION

The matriculation ticket must be procured from the office of the School of Pharmacy, and must be taken out before entering the classes. After matriculation, all students are required to register at the office of the Registrar. The last date of matriculation is October 5, 1935.

### Expenses

| *Matriculation* | *Tuition* *Resident* | *Tuition* *Non-Resident* | *Laboratory and Breakage* | *Graduation* |
|---|---|---|---|---|
| $10.00 (only once) | $200.00 | $250.00 | $40.00 (yearly) | $15.00 |

Tuition for the first semester and laboratory and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (the latter returned in case of failure) on or before February 3, 1936.

A bulletin giving details of the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Maryland.

# STATE BOARD OF AGRICULTURE

816 Fidelity Building, Baltimore, Maryland.

The law provides that the personnel of the State Board of Agriculture shall be the same as the Board of Regents of the University of Maryland. The President of the University is the Executive Officer of the State Board of Agriculture.

**General Powers of Board:** The general powers of the Board as stated in Article 7 of the Laws of 1916, Chapter 391, are as follows:

"The State Board of Agriculture shall investigate the conditions surrounding the breeding, raising, and marketing of live stock and the products thereof, and contagious and infectious diseases affecting the same; the raising, distribution, and sale of farm, orchard, forest, and nursery products, generally, and plant diseases and injurious insects affecting the same; the preparation, manufacture, quality analysis, inspection, control, and distribution of animal and vegetable products, animal feeds, seeds, fertilizers, agricultural lime, agricultural and horticultural chemicals, and biological products; and shall secure information and statistics in relation thereto and publish such information, statistics, and the results of such investigations at such times and in such manner as to it shall seem best adapted to the efficient dissemination thereof; and except where such powers and duties are by law conferred or laid upon other boards, commissions, or officials, the State Board of Agriculture shall have general supervision, direction, and control of the herein recited matters, and generally of all matters in any way affecting or relating to the fostering, protection, and development of the agricultural interests of the State, including the encouragement of desirable immigration thereto, with power and authority to issue rules and regulations in respect thereof not in conflict with the Constitution and Laws of the State or the United States, which shall have the force and effect of law, and all violations of which shall be punished as misdemeanors are punished at common law; and where such powers and duties are by law conferred or laid on other governmental agencies may co-operate in the execution and performance thereof, and when so co-operating each shall be vested with such authority as is now or may hereafter by law be conferred on the other. The powers and duties herein recited shall be in addition to and not in limitation of any power and duties which now are or hereafter may be conferred or laid upon said board."

Under the above authority and by special legislation, all regulatory work is conducted under the general authority of the State Board. This includes the following services:

## LIVE STOCK SANITARY SERVICE

JAMES B. GEORGE, *Director.*

816 Fidelity Building, Baltimore, Maryland.

This service has charge of the regulatory work in connection with the control of disease among animals. It is authorized by law to control outbreaks of rabies, anthrax, blackleg, scabies, Johne's disease, contagious abortion, etc. This service is also charged, in co-operation with the U. S. Bureau of Animal Industry, with the eradication of bovine tuberculosis. The hog cholera control work, which is conducted in co-operation with federal authorities, is also conducted under the general jurisdiction of this service. Much of the laboratory work necessary in conjunction with the identification of disease among animals is done in the University laboratories at College Park.

## STATE HORTICULTURAL DEPARTMENT

College Park, Maryland.

The State Horticultural Law was enacted in 1898. It provides for the inspection of all nurseries and the suppression of injurious insects and diseases affecting plants of all kinds. The work of the department is conducted in close association with the departments of Entomology and Pathology of the University. The regulatory work is conducted under the authority of the law creating the department as well as the State Board of Agriculture. For administrative purposes, the department is placed under the Extension Service of the University on account of the close association of the work. The officers of the department are as follows:

E. N. Cory, State Entomologist
C. E. Temple, State Pathologist
T. B. Symons, Director of the Extension Service

## FEED, FERTILIZER, AND LIME INSPECTION SERVICE

College Park, Maryland.

The Feed, Fertilizer, and Lime Inspection Service, a branch of the chemistry department of the University, is authorized to enforce the State Regulatory Statutes controlling the purity and truthful labeling of all feeds, fertilizers, and limes that are offered or exposed for sale in Maryland. This work is conducted under the general direction of the chemistry department, College of Arts and Sciences, and is under the direction of Dr. L. B. Broughton, State Chemist.

| | |
|---|---|
| L. B. Broughton, Ph.D. | State Chemist |
| L. E. Bopst, B.S. | Associate State Chemist |
| E. C. Donaldson, M.S. | Chief Inspector |
| W. J. Footen | Inspector |
| E. M. Zentz | Inspector |
| H. P. Walls | Assistant Chemist and Micro-Analyst |
| W. C. Supplee, Ph.D. | Assistant Chemist |
| L. H. VanWormer | Assistant Chemist |
| R. E. Baumgardner, B.S. | Assistant Chemist |
| A. B. Heagy, B.S. | Assistant Chemist |
| M. E. High | Laboratory Assistant |

## SEED INSPECTION SERVICE

College Park, Maryland.

The Seed Inspection Service is placed by law under the general supervision of the Maryland Experiment Station. This service takes samples of seed offered for sale, and tests them for quality and germination. Mr. F. S. Holmes is in immediate charge of the seed work, with Dr. H. J. Patterson, Director of the Experiment Station.

## ASSOCIATED STATE DEPARTMENTS

### STATE DEPARTMENT OF FORESTRY

The Department of Forestry was created and organized to protect and develop the valuable timber and tree products of the State, to carry on a campaign of education, and to instruct counties, towns, corporations, and individuals as to the advantages and necessity of protecting from fire and other enemies the timber lands of the State. While the power of the Forestry Department rests with the Regents of the University, acting through the Advisory Board, the detail work is in the hands and under the management of the State Forester, who is secretary of the Board; and all correspondence and inquiries should be addressed to him at 1411 Fidelity Building, Baltimore.

*Scientific Staff:*

| | |
|---|---|
| F. W. Besley, State Forester | Baltimore |
| Karl E. Pfeiffer, Assistant State Forester | Baltimore |
| Walter J. Quick, Jr., Assistant Forester | Baltimore |
| Kenneth J. Seigworth, Assistant Forester | College Park |

Studies have been made of the timber interests of each of the twenty-three counties; and the statistics and information collected are published for free distribution, accompanied by a valuable timber map. The Department also administers six state forests, comprising about 5,000 acres. The Roadside Tree Law directs the Department of Forestry to care for trees growing within the right-of-way of any public highway in the State. A State forest nursery, established in 1914 and located at College Park, is under the jurisdiction of this Department.

### STATE WEATHER SERVICE

The State Weather Service compiles local statistics regarding climatic conditions and disseminates information regarding the climatology of Maryland under the Regents of the University of Maryland through the State Geologist as successor to the Maryland State Weather Service Commission. The State Geologist is ex-officio Director, performing all the functions of former officers with the exception of Meteorologist, who is commissioned by the Governor and serves as liaison officer with the United States Weather Bureau. All activities except clerical are performed voluntarily. The officers are as follows:

| | |
|---|---|
| Edward B. Mathews, Director | Baltimore |
| John R. Weeks, Meteorologist, U. S. Custom House | Baltimore |

### THE STATE GEOLOGICAL AND ECONOMIC SURVEY

The Geological and Economic Survey Commission is authorized under the general jurisdiction of the Board of Regents of the University of Maryland to conduct the work of this department. The State Geological and Economic Survey is authorized to make the following:

Topographic surveys showing the relief of the land, streams, roads, railways, houses, etc.

Geological surveys showing the distribution of the geological formations and mineral deposits of the State.

Agricultural soil surveys showing the areal extent and character of the different soils.

Hydrographic surveys to determine the available waters of the State for potable and industrial uses.

Magnetic surveys to determine the variation of the needle for land surveys.

A permanent exhibit of the mineral wealth of the State in the old Hall of Delegates at the State House, to which new materials are constantly added to keep the collection up-to-date.

The following is the staff of the Survey:

| | |
|---|---|
| Edward B. Mathews, State Geologist | Baltimore |
| Edward W. Berry, Assistant State Geologist | Baltimore |
| Charles K. Swartz, Geologist | Baltimore |
| Joseph T. Singewald, Jr., Geologist | Baltimore |
| Myra Ale, Secretary | Baltimore |
| Grace E. Reed, Librarian | Baltimore |
| Eugene H. Sapp, Clerk | Baltimore |

# SECTION III

## Description Of Courses

*The courses of instruction described in this section are offered at College Park. Those offered in the Baltimore Schools are described in the separate announcements issued by the several schools.*

For the convenience of students in making out schedules of studies, the subjects in the following Description of Courses are arranged alphabetically:

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Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduates, 200-299.

The letter following the number of the course indicates the semester in which the course is offered: thus, 1 f is offered the first semester; 1 s, the second semester; 1 y, the year. A capital S after a course number indicates that the course is offered in the summer session only.

The number of hours' credit is shown by the arabic numeral in parentheses after the title of the course.

A separate schedule of courses is issued each semester, giving the hours, places of meeting, and other information required by the student in making out his program. Students will obtain these schedules when they register.

Students are advised to consult the statements of the colleges and schools in Section II when making out their programs of studies; also "Regulation of Studies," Section I.

## AGRICULTURAL ECONOMICS

PROFESSOR DEVAULT; ASSISTANT PROFESSOR RUSSELL; MR. HAMILTON; MR. WALKER.

A. E. 1 f. *Agricultural Industry and Resources* (3)—Two lectures; one laboratory. Open to sophomores.

A descriptive course dealing with agriculture as an industry and its relation to climate, physiography, soils, population centers and movements, commercial development, transportation, etc.; the existing agricultural resources of the world and their potentialities, commercial importance, and geographical distribution; the chief sources of consumption; the leading trade routes and markets for agricultural products. The history of American agriculture is briefly reviewed. Emphasis is upon the chief crop and livestock products of the United States.

A. E. 2 f. *Agricultural Economics* (3)—Three lectures. Prerequisite, Econ. 5 f or s.

A general course in agricultural economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements, and marketing.

A. E. 3 s. *Advertising Agricultural Products* (3)—Three lectures.

Methods of giving publicity to agricultural products held for sale, naming the farm, advertising mediums, trade marks and slogans, roadside markets, demand vs. competition, legal aspect of advertising, advertising costs and advertising campaigns. (Not given in 1935-1936.)

### For Advanced Undergraduates and Graduates

A. E. 101 s. *Transportation of Farm Products* (3)—Two lectures; one laboratory.

A study of the development of transportation in the United States, and the different agencies for transporting farm products, with special attention to such problems as tariffs, rate structure, the development of fast freight lines, refrigerator service, truck transportation of agricultural products, etc. Not open to students who have taken or who are taking Econ. 112s. (Russell.)

A. E. 102 s. *Marketing of Farm Products* (3)—Three lectures. Prerequisite, Econ. 5 f or s.

A complete analysis of the present system of transporting, storing, and distributing farm products, and a basis for intelligent direction of effort in increasing the efficiency of marketing methods. (DeVault.)

A. E. 103 f. *Co-operation in Agriculture* (3)—Three lectures.

Historical and comparative development of farmers' co-operative organizations with some reference to farmer movements; reasons for failure and essentials to success; commodity developments; the Federal Farm Board; the Farm Credit Administration; trend of present tendencies. (Russell.)

A. E. 104 s. *Agricultural Finance* (3)—Three lectures.

*Agricultural Credit* requirements; institutions financing agriculture; financing specific farm organizations and industries. *Farm insurance*—fire, crop, livestock, and life insurance, with especial reference to mutual development—how provided, benefits, and needed extension. (Russell.)

A. E. 105 s. *Food Products Inspection* (3)—Two lectures; one laboratory.

This course, arranged by the Department of Agricutural Economics in co-operation with the State Department of Markets and the United States Department of Agriculture, is designed to give students primary instruction in the grading, standardizing, and inspection of fruits and vegetables, dairy products, poultry products, meats and other food products. Theoretical instruction covering the fundamental principles will be given in the form of lectures, while the demonstrational and practical work will be conducted through laboratories and field trips to Washington, D. C., and Baltimore. (Staff.)

A. E. 106 s. *Prices* (3)—Two lectures; one laboratory.

A general course in prices, price relationships, and price analysis with emphasis on prices of agricultural products. (Russell.)

A. E. 107 s. *Farm Cost Accounting* (3)—One lecture; two laboratories.

A concise practical course in the keeping, summarizing, and analyzing of farm accounts. (Hamilton.)

A. E. 108 f. *Farm Organization and Operation* (3)—Three lectures.

A study of the organization and operation of Maryland farms from the standpoint of efficiency and profits. Students will be expected to make an analysis of the actual farm business and practices of different types of farms located in various parts of the State, and to make specific recommendations as to how these farms may be organized and operated as successful businesses. (Hamilton.)

A. E. 109 y. *Research Problems* (1-3).

With the permission of the instructor, students will work on any research problems in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of making reports on progress of work, methods of approach, etc. (DeVault.)

### For Graduates

A. E. 201 y. *Special Problems in Agricultural Economics* (3).

An advanced course dealing more extensively with some of the economic problems affecting the farmer; such as land problems, agricultural finance, farm wealth, agricultural prices, transportation, and special problems in marketing and co-operation. (DeVault.)

A. E. 202 y. *Seminar* (1-3).

This course will consist of special reports by students on current economic subjects, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 203 y. *Research* (8).

Students will be assigned research work in agricultural economics under the supervision of the instructor. The work will consist of original investigation in problems of agricultural economics, and the results will be presented in the form of theses. (DeVault.)

A. E. 205 f. *Advanced Agricultural Geography and Commerce* (2)—Two discussion periods.

Individual advanced study of agricultural geography. (Russell.)

A. E. 210 s. *Taxation in Relation to Agriculture* (2)—Two lectures.

Principles and practices of taxation in their relation to agriculture with special reference to the trends of tax levies, taxation in relation to land utilization, taxation in relation to ability to pay and benefits received; a comparison of the following taxes as they affect agriculture: general property tax, income tax, sales tax, gasoline and motor vehicle license taxes, inheritance tax, and special commodity taxes; possibilities of farm tax reduction through greater efficiency and economies in local government. (DeVault and Walker.)

A. E. 211 f. *Taxation in Theory and Practice* (3)—Two lectures; one laboratory period per week.

Development of modern tax supported services; trends in receipts and expenditures of governmental units; theory of taxation: the general property tax, business and license taxes, the income tax, the sales tax, special commodity taxes, inheritance and estate taxes; recent shifts in taxing methods and recent tax reforms; conflicts and duplication in taxation among governmental units; practical and current problems in taxation. (DeVault and Walker.)

## AGRONOMY

### Division of Crops

PROFESSORS METZGER, KEMP; ASSOCIATE PROFESSOR EPPLEY.

AGRON. 1 f. *Cereal Crop Production* (3)—Two lectures; one laboratory.

History, distribution, adaptation, culture, improvement, and uses of cereal, forage, pasture, cover, and green manure crops.

AGRON. 2 s. *Forage Crop Production* (3)—Two lectures; one laboratory.

Continuation of Agron. 1 f.

### For Advanced Undergraduates and Graduates

AGRON. 102 f. *Technology of Crop Quality* (2 or 3)—Students, other than those specializing in Agronomy, may register for either half of the course. Part one *(Grading Farm Crops)*—one lecture; one laboratory. The market classifications and grades as recommended by the United States Bureau of Markets, and practice in determining grades. Part two *(Grain, Hay, and Seed Judging and Identification)*—one laboratory. (Eppley.)

AGRON. 103 f. *Crop Breeding* (2)—One lecture; one laboratory. Prerequisite, Gen. 101 f.

The principles of breeding as applied to field crops and methods used in crop improvement. (Kemp.)

AGRON. 104 f and s. *Selected Crop Studies* (1-4)—Credit according to work done. This course is intended primarily to give an opportunity for advanced study of crop problems or crops of special interest to students. (Staff.)

AGRON. 121 s. *Methods of Crop and Soil Investigations* (2)—One lecture; one laboratory.

A consideration of crop investigation methods at the various experiment stations, and the standardization of such methods. (Metzger.)

### For Graduates

AGRON. 201 y. *Crop Breeding* (4-10)—Credits determined by work accomplished.

The content of this course is similar to that of Agron. 103 f, but will be adapted more to graduate students, and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

AGRON. 203 y. *Seminar* (2)—One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in crops and soils.

AGRON. 209 y. *Research* (6-8)—Credit determined by work accomplished.

With the approval of the head of the department the student will be allowed to work on any problem in agronomy, or he will be given a list of suggested problems from which he may make a selection. (Staff.)

### Division of Soils

PROFESSOR BRUCE; ASSOCIATE PROFESSOR THOMAS; LECTURER THOM.

SOILS 1 f and s. *Soils and Fertilizers* (3-5)—Three lectures; two two-hour laboratory periods. Prerequisites, Geol. 1 f, Chem 1 y, Chem. 13 s, or registration in Chem. 13 s.

A study of the principles involved in soil formation and classification. The influence of physical, chemical, and biological activities on plant growth, together with the use of fertilizers in the maintenance of soil fertility. Lectures may be taken without the laboratory.

#### For Advanced Undergraduates and Graduates

SOILS 102 s. *Soil Management* (3)—Two lectures; one laboratory. Prerequisite, Soils 1.

A study of the soil fertility systems of the United States with special emphasis on the interrelation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems, and the economic and national aspect of permanent soil improvement. The practical work includes laboratory and greenhouse practice in soil improvement.

SOILS 103 f. *Soil Geography* (3)—Two lectures; one discussion period.

A study of the genealogy of soils, the principal soil regions of North America, and the classification of soils. Field trips will be made to emphasize certain important phases of the subject.

#### For Graduates

SOILS 204 s. *Soil Micro-Biology* (3)—Two lectures; one laboratory. Prerequisite, Bact. 1.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, and sulphur oxidation and reduction, and deals also with such organisms as fungi, algae, and protozoa. The course includes a critical study of the methods used by experiment stations in soil investigational work. (Thom.)

SOILS 201 y. *Special Problems and Research* (10-12).

Original investigation of problems in soils and fertilizers. (Staff.)

SOILS 202 y. *Soil Technology* (7-5 f, 2 s)—Three lectures; two laboratories first semester; two lectures second semester. Prerequisites, Geol. 1, Soils 1, and Chem. 1.

In the first semester chemical and physico-chemical study of soil problems as encountered in field, greenhouse, and laboratory. In the second semester physical and plant nutritional problems related to the soil. (Thomas.)

## ANIMAL HUSBANDRY

PROFESSORS MEADE and CARMICHAEL.

A. H. 1 f. *General Animal Husbandry* (3)—Two lectures; one laboratory.

Place of livestock in the farm organization. General principles underlying efficient livestock management. Brief survey of types, breeds, and market classes of livestock, together with an insight into our meat supply.

#### For Advanced Undergraduates and Graduates

A. H. 101 f. *Feeds and Feeding* (3)—Two lectures; one laboratory.

Elements of nutrition; source, characteristics, and adaptability of the various feeds to the several classes of livestock. Feeding standards, the calculation and compounding of rations. (Meade.)

A. H. 102 s. *Principles of Breeding* (3)—Two lectures; one laboratory.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding, and pedigree work. (Meade.)

A. H. 103 f; 104 s. *Livestock Management* (5)—Four lectures; one laboratory.

First semester instruction given will relate to the care, feeding, breeding, and management of beef cattle and horses. Second semester, similar instruction will be given relative to swine and sheep. (Carmichael.)

A. H. 105 f; 106 s. *Livestock Judging* (2)—Two laboratories.

First semester—The comparative and competitive judging of beef cattle and horses. Second semester—The comparative and competitive judging of swine and sheep. Such judging teams as may be chosen to represent the University will be selected from among those taking this course. (Carmichael.)

A. H. 107 f. *Marketing Livestock, Meat, and Wool* (3)—Three lectures.

Market requirements in relation to livestock production. Market classes and grades. Organization and operation of public livestock markets. Livestock marketing methods. Preparation of livestock for shipment, and care in transit. Marketing feeders, grade, and purebred breeding stock. (Carmichael.)

A. H. 108 f; 109 s. *Meat and Meat Packing* (2)—Two laboratory periods.

The slaughtering of meat animals; the handling of meat, and the process involved in the preparation, curing, and distribution of meat and its products. (Carmichael.)

A. H. 110 s. *Nutrition* (3)—Two lectures; one laboratory.

A study of digestion, assimilation, metabolism, and protein and energy requirements. Methods of investigation and studies in the utilization of feed and nutrients. (Meade.)

### For Graduates

A. H. 201 y. *Special Problems in Animal Husbandry* (4-6).

Problems which relate specifically to the character of work the student is pursuing will be assigned. Credit given will be in proportion to the amount and character of work completed. (Meade, Carmichael.)

A. H. 202 y. *Seminar* (2)—One lecture.

Students are required to prepare papers based upon their research for presentation before and discussion by the class. (Staff.)

A. H. 203 y. *Research*—Credit to be determined by the amount and character of work done.

With the approval of the head of the department, the student will be required to pursue original research in some phase of animal husbandry, carry the same to completion, and report the results in the form of a thesis. (Meade, Carmichael.)

## ASTRONOMY

PROFESSOR T. H. TALIAFERRO

ASTR. 101 y. *Astronomy* (4)—Two lectures. Elective, but open only to juniors and seniors. (Not given in 1935-1936.)

An elementary course in descriptive astronomy. (Taliaferro.)

## BACTERIOLOGY AND PATHOLOGY

PROFESSOR REED; ASSOCIATE PROFESSOR BLACK; MR. FABER; MR. BARTRAM; MR. DUNNIGAN; DR. JAMES, LECTURER IN BACTERIOLOGY.

BACT. 1 f or s. *General Bacteriology* (4)—Two lectures; two laboratories. Sophomore year.

A brief history of bacteriology; microscopy; bacteria and their relation to nature; morphology; classification; metabolism; bacterial enzymes; application to water, milk, foods, and soils; relation to the industries and to diseases. Preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; isolation, cultivation, and identification of aerobic and anaerobic bacteria; effects of physical and chemical agents; microbiological examinations.

BACT. 1 A f or s. *General Bacteriology* (2)—Two lectures. Sophomore year. Prerequisite, consent of instructor.

This course consists of the lectures only of Bact. 1.

BACT. 2 s. *Pathogenic Bacteriology* (4)—Two lectures; two laboratories. Sophomore year. Prerequisite, Bact. 1. Registration limited.

Principles of infection and immunity; characteristics of pathogenic microorganisms. Isolation and identification of bacteria from pathogenic material; effects of pathogens and their products.

BACT. 2 A s. *Pathogenic Bacteriology* (2)—Two lectures. Sophomore year. Prerequisite, Bact. 1 and consent of instructor.

This course consists of the lectures only of Bact. 2 s.

BACT. 3 s. *Household Bacteriology* (3)—One lecture; two laboratories. Junior year. Home Economics students only.

A brief history of bacteriology; bacteria and their relation to nature; care, preservation, and contamination of foods; personal, home, and community hygiene. Laboratory technic; examination and cultivation of bacteria; microbiological examination of foods and other materials.

BACT. 4 s. *Sanitary Bacteriology* (1)—One lecture. Senior year. Engineering students only.

Bacteria and their application to water purification and sewage disposal.

### For Advanced Undergraduates and Graduates

BACT. 101 f. *Dairy Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteria in milk, sources and development; milk fermentation; sanitary production; care and sterilization of equipment; care and preservation of milk and cream; pasteurization; public health requirements. Standard methods of milk analysis; practice in the bacteriological control of milk supplies; occasional inspection trips. (Black.)

BACT. 102 s. *Dairy Bacteriology (Continued)* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 101 f or Bact. 1 and consent of instructor.

Relation of bacteria, yeasts, and molds to cream, concentrated milks, starters, fermented milks, ice cream, butter, cheese, and other dairy products; sources of contamination. Microbiological analysis and control; occasional inspection trips. (Black.)

BACT. 103 f. *Hematology* (2)—Two laboratories. Junior year. Bact. 1 desirable. Registration limited.

Procuring blood; estimating the amount of hemoglobin; color index; examination of red cells and leucocytes in fresh and stained preparations; numerical count of erythrocytes and leucocytes; differential count of leucocytes; sources and development of the formed elements of blood; pathological forms and counts. (Reed.)

**Bact.** 104 s. *Urinalysis* (2)—Two laboratories. Junior year. Bact. 1 desirable.

Physiologic, pathologic, and diagnostic significance; use of clinical methods and interpretation of results. (Reed.)

**Bact.** 105 f. *Comparative Anatomy and Physiology* (3)—Three lectures. Junior year.

Structure of the animal body; abnormal as contrasted with normal; the interrelationship between the various organs and parts as to structure and function. (Reed.)

**Bact.** 106 s. *Animal Hygiene* (3)—Three lectures or demonstrations. Junior year.

Care and management of domestic animals, with special reference to maintenance of health and resistance to disease; prevention and early recognition of disease; general hygiene; sanitation; first aid. (Reed.)

**Bact.** 109 f. *Pathological Technic* (3)—Three laboratories. Junior year. Bact. 1 desirable.

Examination of fresh material; fixation; decalcification; sectioning by free hand and freezing methods; celloidin and paraffin embedding and sectioning; general staining methods. (Reed.)

**Bact.** 110 s. *Pathological Technic (Continued)* (2-5)—Laboratory course. Junior year. Prerequisite, Bact. 109 f or consent of instructor.

Special methods in pathological investigations and laboratory procedures which may be applied to clinical diagnosis. (Reed.)

**Bact.** 111 f. *Food Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1 and consent of instructor.

Bacteria, yeasts, and molds in foods; relation to preservation and spoilage; sanitary production and handling; food plant sanitation; food regulations; food infections and intoxications. Microbiological examination of normal and spoiled foods; factors affecting preservation. Offered alternate years, alternating with Bact. 125 f. (Black.)

**Bact.** 112 s. *Sanitary Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteriological and public health aspects of water supplies and water purification; swimming pool sanitation; sewage disposal, industrial wastes; disposal of garbage and refuse; municipal sanitation. Practice in standard methods for examination of water and sewage; differentiation and significance of the coli-aerogenes group; interpretation of bacteriological analyses. (Bartram.)

**Bact.** 115 f. *Serology* (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 2 s or consent of instructor. Registration limited.

Infection and resistance; agglutination, precipitation, lytic and complement fixation reactions; principles of immunity and hypersensitiveness. Preparation of necessary reagents; general immunologic technic; factors affecting reactions; applications in the identification of bacteria and diagnosis of disease. (Faber.)

**Bact.** 116 s. *Epidemiology* (2)—Two lectures. Junior year. Prerequisite, Bact. 1.

Epidemiology of important infectious diseases, including history, characteristic features, methods of transmission, immunization and control; periodicity; principles of investigation; public health applications. Offered alternate years, alternating with Bact. 126 s. (Black.)

**Bact.** 121 f. *Research Methods* (1)—One lecture. Senior year. Prerequisite, Bact. 1 and consent of instructor.

Methods of research; library practice; current literature; preparation of papers; research institutions, investigators; laboratory design, equipment and supplies; academic practices; professional aids. (Black.)

**Bact.** 122 f or s. *Advanced Methods* (2)—One lecture; one laboratory. Senior year. Prerequisite, Bact. 1 and consent of instructor. Registration limited.

Microscopy, dark field and single cell technic, photomicrography; colorimetric and potentiometric determinations; oxidation-reduction, electrophoresis; surface tension; gas analysis; special culture methods; filtration; animal care; practice in media and reagent preparation. (Bartram.)

**Bact.** 123 f. *Bacteriological Problems* (2-3)—Laboratory. Senior year. Prerequisite, Bact. 1 and any other courses needed for the projects. Registration limited.

Subject matter suitable to the needs of the particular student or problems as an introduction to research will be arranged. The research is intended to develop the student's initiative. The problems are to be selected, outlined, and investigated in consultation with and under the supervision of a member of the department. Results are to be presented in the form of a thesis. (Black.)

**Bact.** 124 s. *Bacteriological Problems (Continued)* (2-3)—Laboratory. Senior year. Prerequisite, Bact. 1 and any other courses needed for the projects. Registration limited. (Black.)

**Bact.** 125 f. *Clinical Methods* (3)—One lecture; two laboratories. Senior year. Prerequisite, Bact. 1 and consent of instructor.

Clinical material, diagnostic features. Methods in the qualitative and quantitative determination of important constituents of gastric contents, blood, urine, feces, and exudates. Offered alternate years, alternating with Bact. 111 f. (Not offered 1935-1936.) (Bartram.)

**Bact.** 126 s. *Public Health* (1)—One lecture. Senior year. Bact. 1 desirable.

A series of weekly lectures on public health and its administration, by the staff members of the Maryland State Department of Health, representing each of the bureaus and divisions. Offered alternate years, alternating with Bact. 116s. (Not offered 1935-1936.) (Black, in charge.)

Bact. 127 f. *Advanced Bacteriology* (2)—Two lectures. Senior year. Prerequisite, Bact. 1 and consent of instructor.

History; systematic relationships; special morphology; bacterial variation; growth; chemical composition; action of chemical and physical agents; systematic bacteriology, classification, review of important genera. (Black.)

Bact. 128 s. *Bacterial Metabolism* (2)—Two lectures. Senior year. Prerequisite, Bact. 1, Chem. 12 f or equivalent, and consent of instructor.

Oxygen relations; enzymes; bacterial metabolism and respiration; chemical activities of microorganisms; changes produced in inorganic and organic compounds; industrial fermentations. Offered alternate years, alternating with Bact. 206 s. (Black.)

Bact. 131 f. *Journal Club* (1)—Senior year. Prerequisites, Bact. 1 and at least one of the advanced courses.

Students will submit reports on current scientific literature or on individual problems in bacteriology, which will be discussed and criticised by members of the class and staff. (Black and Staff.)

Bact. 132 s. *Journal Club (Continued)* (1)—Senior year. Prerequisites, Bact. 1 and at least one of the advanced courses. (Black and Staff.)

## For Graduates

Bact. 201 f. *Advanced General Bacteriology* (3)—One lecture; two laboratories. Prerequisite, degree in biological sciences and consent of instructor. Students with credit in an approved elementary course will not receive credit for this course.

History; microscopy; morphology; classification; metabolism; relation to industries and to diseases. Media preparation; examination of bacteria; staining; cultivation and identification of bacteria. Minor credit will not be given for Bact. 201 f unless Bact. 202 s is satisfactorily completed. (Faber.)

Bact. 202 s. *Advanced Pathogenic Bacteriology* (3)—One lecture; two laboratories. Prerequisite, Bact. 1 or 201 f or equivalent. Registration limited.

Infection and immunity; pathogenic microorganisms. Isolation, identification, and effects of pathogens. (Faber.)

Bact. 203 f. *Animal Disease Research* (2-6)—Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor. Laboratory and field work by assignment. (Reed.)

Bact. 204 s. *Animal Disease Research (Continued)* (2-6)—Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor. (Reed.)

*Bact. 205 f. *Advanced Food Bacteriology* (3)—Two lectures; one laboratory. Prerequisite, Bact., 10 hours.

Critical review of microorganisms necessary or beneficial to food products; food spoilage; theories and advanced methods in food preservation; application of bacteriological control methods to manufacturing operations. (James.)

Bact. 206 s. *Physiology of Bacteria* (2)—Two lectures. Prerequisite, Bact., 10 hours and Chem. 108 s or equivalent.

Growth; chemical composition; physical characteristics; energy relationships; influence of environmental conditions on growth and metabolism; disinfection; physiological interrelationships; changes occurring in media. Offered alternate years, alternating with Bact. 128 s. (Not offered 1935-1936.) (Black.)

Bact. 207 f. *Special Topics* (1)—Prerequisite, Bact., 10 hours.

Presentation and discussion of fundamental problems and special subjects. (Black.)

Bact. 208 s. *Special Topics (Continued)* (1)—Prerequisite, Bact., 10 hours. (Black.)

Bact. 209 f. *Seminar* (1)—Prerequisite, Bact., 10 hours and consent of instructor.

Conferences and reports prepared by the student on current research and recent advances in bacteriology. (Black.)

Bact. 210 s. *Seminar (Continued)* (1)—Prerequisite, Bact., 10 hours and consent of instructor. (Black.)

Bact. 211 f. *Research* (1-6)—Laboratory. Prerequisites, Bact. 1 and any other courses needed for the particular projects. Credit will be determined by the amount and character of the work accomplished.

Properly qualified students will be admitted upon approval of the department head and with his approval the student may select the subject for research. The investigation is outlined in consultation with and pursued under supervision of a faculty member of the department. The results obtained by a major student working towards an advanced degree are presented as a thesis, a copy of which must be filed with the department. (Black.)

Bact. 212 s. *Research (Continued)* (1-6)—Laboratory. Prerequisites, Bact. 1 and any other courses needed for the particular projects. (Black.)

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*This course will be given in the evening. A special fee is charged. The course will not be given unless a sufficient number register. One or more of the other scheduled courses may also be given by other staff members under these conditions.

## BOTANY

PROFESSORS APPLEMAN, NORTON, TEMPLE;
ASSOCIATE PROFESSOR BAMFORD; ASSISTANT PROFESSORS GREATHOUSE,
PARKER; MISS SIMONDS, MR. MCCANN, MR. SHEAR,
MR. WOODS, MR. KING, MR. STUART.

### A. General Botany and Morphology

BOT. 1 f or s. *General Botany* (4)—Two lectures; two laboratories.

General introduction to botany, touching briefly on all phases of the subject. The chief aim in this course is to present fundamental biological principles rather than to lay the foundation for professional botany. The student is also acquainted with the true nature and aim of botanical science, its methods and the value of its results.

BOT. 2 s. *General Botany* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1.

A study of algae, bacteria, fungi, liverworts, mosses, ferns, and seed plants. The development of reproduction, adjustment of plants to land, habit of growth, and the attendant changes in vascular and anatomical structures are stressed. Several field trips will be arranged. With Bot. 1, a cultural course intended also as foundational to a career in the plant sciences.

BOT. 3 s. *Local Flora* (2)—Two laboratories. A study of common plants, both wild and cultivated, and the use of keys, floral manuals, and other methods of identifying them. Largely field work.

### For Advanced Undergraduates and Graduates

BOT. 101 f. *Plant Anatomy* (3)—One lecture; two laboratories. Prerequisite, Bot. 1.

The origin and development of the organs and tissue systems in the vascular plants, with special emphasis on the structures of roots, stems, and leaves. Reports of current literature are required. (Bamford.)

BOT. 102 f. *Mycology* (4)—Two lectures; two laboratories.

An introductory study of the morphology, life histories, classification, and economics of the fungi. Methods of cultivating fungi and identification of plant pathogens constitute a part of the laboratory work. (Norton, Simonds.)

BOT. 103 f. *Plant Taxonomy* (3)—One lecture; two laboratories.

Classification of the vegetable kingdom, and the principles underlying it; the use of other sciences and all phases of botany as taxonomic foundations; methods of taxonomic research in field, garden, herbarium, and library. Each student to work on a special problem during some of the laboratory time. (Norton.)

BOT. 105 s. *Economic Plants* (2)—Two lectures.

The names, taxonomic position, native and commercial geographic distribution, and use of the leading economic plants of the world are studied. By examination of plant products from markets, stores, factories, and gardens, students become familiar with the useful plants both in the natural form and as used by man. (Not given in 1935-1936.) (Norton.)

BOT. 106 f. *History and Philosophy of Botany* (1)—One lecture. Discussion of the development of the ideas and knowledge about plants, also a survey of contemporary work in botanical science. (Norton.)

BOT. 107 f or s. *Methods in Plant Histology* (1)—One laboratory.

Principles and methods involved in the preparation of permanent slides. (Bamford.)

### For Graduates

BOT. 201 s. *Cytology* (3)—One lecture; two laboratories. Prerequisite, Bot. 1.

A detailed study of cell contents and cell reproduction, and the methods of illustrating them. The bearing of cytology upon theories of heredity and evolution will be emphasized. (Bamford.)

BOT. 203 f and s. *Seminar* (1).

The study of special topics in plant morphology. (Bamford.)

BOT. 204. *Research*—Credit according to work done. (Norton, Bamford.)

NOTE: See announcement on page 267 for further Botany courses given at the Chesapeake Biological Laboratory.

### B. Plant Pathology

PLT. PATH. 1 f. *Diseases of Plants* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1.

An introductory study in the field, in the laboratory, and in the literature, of symptoms, causal organisms and control measures of the diseases of vegetables, field crops, fruits, and ornamental plants. Some option is given in the selection of laboratory materials for detailed study, so that the student may become familiar with the important diseases of the plants in his chosen field.

### For Advanced Undergraduates and Graduates

PLT. PATH. 101 s. *Diseases of Fruits* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

An intensive study intended to give a rather thorough knowledge of the subject matter, such as is needed by those who expect to become advisers in fruit production, as well as those who expect to become specialists in plant pathology. (Temple.)

PLT. PATH. 102 s. *Diseases of Garden and Field Crops* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

The diseases of garden crops, truck crops, cereal and forage crops. Intended for students of vegetable culture, agronomy, and plant pathology, and for those preparing for county agent work. (Temple.)

PLT. PATH. 103 f. *Research Methods* (2)—One conference and five hours of laboratory and library work. Prerequisite, Plt. Path. 1 f or equivalent.

Technic of plant disease investigations: sterlization, culture media, isolation of pathogens, inoculation methods, single-spore methods, disinfectants, fungicides, photography, preparation of manuscripts, and the literature in the scientific journals and bulletins on these subjects. (Temple.)

PLT. PATH. 104 f and s. *Minor Investigations*—Credit according to work done. A laboratory course with an occasional conference. Prerequisite, Plt. Path. 1 f.

In this course the student may enter or withdraw at any time, including the summer months, and receive credit for the work accomplished. The course is intended primarily to give practice in technic so that the student may acquire sufficient skill to undertake fundamental research. Only minor problems or special phases of major problems may be undertaken. Their solution may include a survey of the literature on the problem under investigation and both laboratory and field work. (Temple, Norton.)

PLT. PATH. 105 s. *Diseases of Ornamentals* (2)—One lecture; one laboratory.

The most important diseases of plants growing in greenhouse, flower garden, and landscape, including shrubs and shade trees. (Temple.)

PLT. PATH. 106 y. *Seminar* (1).

Conferences and reports on plant pathological literature and on recent investigations. (Temple.)

PLT. PATH. 107 f. *Plant Disease Control* (3)—Two lectures; one laboratory. Prerequisite, Plt. Path. 1 f.

An advanced course dealing with the theory and practice of plant disease control; the preparation of sprays and other fungicides and the testing of their toxicity in greenhouse and laboratory; demonstration and other extension methods adapted to county agent work and to the teaching of agriculture in high schools. (Not offered in 1935-1936.) (Temple.)

### For Graduates

PLT. PATH. 201 f. *Virus Diseases* (2)—Two lectures.

An advanced course dealing with the mosaic and similar or related diseases of plants, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Temple.)

PLT. PATH. 203 s. *Non-Parasitic Diseases* (3)—Two lectures; one laboratory.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases; dusts and sprays, fertilizers; improper treatment and other detrimental conditions. (Norton.)

PLT. PATH. 205 y. *Research*—Credit according to work done. (Norton, Temple.)

## C. Plant Physiology

PLT. PHYS. 1 f. *Elementary Plant Physiology.* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f or s.

A summary view of the general physiological activities of plants. The aim in this course is to stress principles rather than factual details.

### For Advanced Undergraduates and Graduates

PLT. PHYS. 101 s. *Plant Ecology* (3)—Two lectures; one laboratory. Prerequisite, Bot. 1 f or s.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much of the work, especially the practical, must be carried on in the field, and for this purpose type regions adjacent to the University are selected.

### For Graduates

PLT. PHYS. 201 s. *Plant Biochemistry* (4)—Two lectures; two laboratories. Prerequisite, an elementary knowledge of plant physiology and organic chemistry.

An advanced course on the chemistry of plant life. It deals with materials and processes characteristic of plant life. Primary syntheses and the transformations of materials in plants and plant organs are especially emphasized. (Appleman, Parker.)

PLT. PHYS. 202 f. *Plant Biophysics* (4)—Two lectures; two laboratories. Prerequisites, Bot. 1 f or Bot. 1 s and Plt. Phys. 1 f or equivalent. An elementary knowledge of physics or physical chemistry is highly desirable.

An advanced course dealing with the operation of physical forces in life processes and physical methods of research in plant physiology. Practice in recording meterological data constitutes a part of the course. (Greathouse.)

PLT. PHYS. 203 s. *Plant Microchemistry* (2)—One lecture; one laboratory. Prerequisites, Bot. 1 f or s, Chem. 1 y, or equivalents.

The isolation, indentification, and localization of organic and inorganic substances found in plant tissues by micro-technical methods. The use of these methods in the study of metabolism in plants is emphasized. (Parker.)

PLT. PHYS. 204 f. *Growth and Development* (2). (Appleman.)

PLT. PHYS. 205 f and s. *Seminar* (1).

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (Appleman.)

PLT. PHYS. 206 y. *Research*—Credit according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Appleman, Greathouse, Parker.)

## CHEMISTRY

PROFESSORS BROUGHTON, DRAKE, HARING, MCDONNELL;
ASSOCIATE PROFESSORS WHITE, WILEY;
ASSISTANT PROFESSOR MACHWART;
DR. WEILAND, DR. SUPPLEE, MR. CAMPBELL, MR. HASKINS, MR. HORNE, MR. WHITE, MR. HATFIELD, MR. BOWERS, MR. SHRADER, MR. JACOBSEN, MR. VEITCH, MR. DUVALL, MR. STIMPSON, MR. HERSBERGER, MR. ZAPPONI.

### A. General Chemistry

CHEM. 1 A y. *General Chemistry* (8)—Two lectures; two laboratories.

A study of the non-metals and metals. One of the main purposes of the course is to develop original work, clear thinking, and keen observation.

Course A is intended for students who have never studied chemistry, or have passed their high school chemistry with a grade of less than B.

CHEM. 1 B y. *General Chemistry* (8)—Two lectures; two laboratories.

This course covers much the same ground as Chem. 1 A y, but the subject matter is taken up in more detail, with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds, and a systematic qualitative analysis of the more common metals and acid radicals.

Course B is intended for students who have passed an approved high school chemistry course with a grade of not less than B.

CHEM. 2 y. *Qualitative Analysis* (6)—Two lectures; one laboratory the first semester, and one lecture; two laboratories the second semester. Prerequisite, Chem. 1 y.

A study of the reactions of the common metals and the acid radicals, their separation and identification, and the general underlying principles.

### For Advanced Undergraduates and Graduates

CHEM. 100 s. *Special Topics for Teachers of Elementary Chemistry* (2)—Two lectures. Prerequisite, Chem. 1 y or equivalent.

A study of the content and the method of presentation of a high school chemistry course. It is designed chiefly to give a more complete understanding of the subject matter than is usually contained in an elementary course. Some of the recent advances in inorganic chemistry will be discussed. (White.)

CHEM. 104 f. *Advanced Inorganic Chemistry* (4)—Two lectures; two laboratories. Prerequisite, Chem. 2 y. Lectures may be taken without laboratory.

This course is an advanced study of the general principles of inorganic chemistry. Special emphasis is given to the reactions and the more unusual properties of the common elements. Laboratory experiments are selected which involve important theoretical considerations. (White.)

### For Graduates

CHEM. 200 A y. *Chemistry of the Rarer Elements* (4)—Two lectures. Prerequisite, Chem. 2 y.

The course is devoted to a study of the elements not usually considered in the elementary course. (White.)

CHEM. 200 B y. *Advanced Inorganic Laboratory* (4)—Two laboratories. Prerequisite, consent of instructor.

A laboratory study of the analyses and the compounds of elements considered in Chem. 200 A y. (White.)

CHEM. 201 f and s. *Research in Inorganic Chemistry*. Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (White.)

### B. Analytical Chemistry

CHEM. 4 f or s. *Quantitative Analysis* (4)—Two lectures; two laboratories. Prerequisite, Chem. 1 y.

Quantitative analysis for pre-medical students with special reference to volumetric methods.

CHEM. 5 y. *Determinative Mineralogy and Assaying* (4)—One lecture; one laboratory. Prerequisite, Chem. 1 y.

The more important minerals are identified by their characteristic physical and chemical properties. Assays of gold, silver, copper, and lead are made.

CHEM. 6 y. *Quantitative Analysis* (8)—Two lectures; two laboratories. Prerequisite, Chem. 2 y.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations of volumetric analysis. Study of indicators, typical volumetric and colorimetric methods. The calculations of volumetric and gravimetric analysis are emphasized, as well as calculations relating to common ion effect. Required of all students whose major is chemistry.

### For Advanced Undergraduates and Graduates

CHEM. 101 y. *Advanced Quantitative Analysis* (10)—Two lectures; three laboratories. Prerequisite, Chem. 6 y or its equivalent.

A broad survey of the field of inorganic quantitative analysis. In the first semester mineral analysis will be given. Included in this will be analysis of silicates, carbonates, etc. In the second semester the analysis of steel and iron will be taken up. However, the student will be given wide latitude as to the type of quantitative analysis he wishes to pursue during the second semester. (Wiley.)

CHEM. 103 y. *Advanced Industrial Analysis* (10)—Two lectures; three laboratories.

This course includes the analysis of alloys of industrial application. The interpretation of chemical analysis and correlation of chemical composition and physical properties. A limited amount of work will be done with the microscope. (Wiley.)

### For Graduates

CHEM. 202 f and s. *Research in Quantitative Analysis*—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Wiley.)

## C. Organic Chemistry

CHEM. 8 A y. *Elementary Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 1 y.

This course includes an elementary study of the fundamentals of organic chemistry, and is designed to meet the needs of students specializing in chemistry, and pre-medical students.

CHEM. 8 B y. *Elementary Organic Laboratory* (2)—One laboratory.

A course designed to familiarize the student with the fundamental methods of the organic laboratory. This course with Chem. 8 A y will satisfy the pre-medical requirements in organic chemistry.

### For Advanced Undergraduates and Graduates

CHEM. 116 y. *Advanced Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 8 A y and 8 B y or their equivalent.

This course is devoted to a more advanced study of the compounds of carbon than is undertaken in Chem. 8 A y. Graduate students who desire an accompanying laboratory course should elect Chem. 210 y. Juniors

taking Chem. 116 y are expected to accompany it with Chem. 117 y and to elect Chem. 118 y in their senior year. (Drake.)

CHEM. 117 y. *Organic Laboratory* (2)—One laboratory.

This course is devoted to an elementary study of organic qualitative analysis. The work includes the identification of unknown organic compounds, and corresponds to the more extended course, Chem. 207. (Drake.)

CHEM. 118 y. *Advanced Organic Laboratory* (2)—One laboratory.

A study of organic quantitative analysis and the preparation of organic compounds. Quantitative determinations of carbon and hydrogen, nitrogen, and halogen are carried out, and syntheses more difficult than those of Chem. 8 B y are studied. (Drake.)

### For Graduates

CHEM. 203 f or s. *Special Topics in Organic Chemistry* (2)—A lecture course which will be given any half-year when there is sufficient demand.

The course will be devoted to an advanced study of topics which are too specialized to be considered in Chem. 116 y. Topics that may be covered are dyes, drugs, carbohydrates, plant pigments, etc. The subject matter will be varied to suit best the needs of the particular group enrolled. (Drake.)

CHEM. 204 f or s. *Special Topics in Organic Chemistry* (2)—This course is similar in its scope to Chem. 203.

The topics discussed will be varied from year to year, and will include recent important advances in such fields as terpene chemistry, and the chemistry of other important natural products. The treatment of the subject will be primarily chemical, and the physiological, or biochemical significance and action of the various compounds discussed will not be stressed. (Drake.)

CHEM. 205 f or s. *Organic Preparations* (4)—A laboratory course, devoted to the synthesis of various organic compounds.

This course is designed to fit the needs of students whose laboratory experience has been insufficient for research in organic chemistry. (Drake.)

CHEM. 206 f or s. *Organic Microanalysis* (4)—A laboratory study of the methods of Pregl for the quantitative determination of halogen, nitrogen, carbon, hydrogen, methoxyl, etc., in very small quantities of material.

This course is open only to properly qualified students and the consent of the instructor is necessary before enrollment. (Drake.)

CHEM. 207 f or s. *Organic Qualitative Analysis* (variable credit to suit student, with a minimum of 2 and a maximum of 6 credits.)

Laboratory work devoted to the identification of pure organic substances and of mixtures. The text used is Kamm's "Qualitative Organic Analysis."

This course should be taken by students seeking a higher degree whose major is organic chemistry. The work is an excellent preparation for the problems of identification likely to be encountered while conducting research. (Drake.)

CHEM. 210 y. *Advanced Organic Laboratory* (4 or 6).

Students electing this course should elect Chem. 116 y. The content of the course is essentially that of Chem. 117 y and 118 y, but may be varied within wide limits to fit the needs of the individual student. (Drake.)

CHEM. 211 f and s. *Research in Organic Chemistry*—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Drake.)

### D. Physical Chemistry

CHEM. 10 y. *Elementary Physical Chemistry* (6)—Two lectures; one laboratory. Prerequisites, Chem. 1 y; Phys. 1 y; Math. 5 y.

This course, designed particularly for those unable to pursue the subject further, reviews the more theoretical points of inorganic chemistry from an advanced standpoint and lays a good foundation for more advanced work in physical chemistry.

#### For Advanced Undergraduates and Graduates

CHEM. 102 A y. *Physical Chemistry* (6)—Three lectures. Prerequisites, Chem. 6 y; Phys. 2 y; Math. 5 y.

For those taking laboratory, graduate students will elect Chem. 219 f and s (4), and undergraduates Chem. 102 B y (4).

This course aims to furnish the student with a thorough background in the laws of theories of chemistry. The gas laws, kinetic theory, liquids, solutions, elementary thermodynamics, thermochemistry, equilibrium, chemical kinetics, etc., will be discussed. (Haring.)

CHEM. 102 B y. *Physical Chemistry Laboratory* (4)—Two laboratories.

This course must be taken by undergraduates who desire to take laboratory work in connection with Chem. 102 A y. (Haring.)

#### For Graduates

*Note:* CHEM. 102 A y and 102 B y or their equivalent are prerequisites for all advanced courses in physical chemistry.

CHEM. 212 A f and A s. *Colloid Chemistry* (4)—Two lectures.

This is a thorough course in the chemistry of matter associated with surface energy. First semester, theory; second semester, practical applications. (Haring.)

CHEM. 212 B f and B s. *Colloid Chemistry Laboratory* (4)—Two laboratories, which must accompany or be preceded by Chem. 212 A f and A s. (Haring.)

CHEM. 213 f. *Phase Rule* (2)—Two lectures.

A systematic study of heterogeneous equilibria. One, two, and three component systems will be considered, with practical applications of each. (Not give in 1935-1936.) (Haring.)

CHEM. 214 s. *Structure of Matter* (2)—Two lectures.

Subjects considered are radioactivity, isotopes, the Bohr and Lewis-Langmuir theories of atomic structure, and allied topics. (Not given in 1935-1936.) (Haring.)

CHEM. 215 s. *Catalysis* (2)—Two lectures.

This course consists of lectures on the theory and applications of catalysis. (Not given in 1935-1936.) (Haring.)

CHEM. 216 f. *Theory of Solutions* (2)—Two lectures.

A detailed study is made of the modern theory of ideal solutions, of the theory of electrolytic dissociation, and of the recent developments of the latter. (Not given in 1935-1936.) (Haring.)

CHEM. 217 A f and A s. *Electrochemistry* (4)—Two lectures.

A study of the principles and some of the practical applications of electrochemistry. First semester, theory; second semester, practical applications. (Not given in 1935-1936.) (Haring.)

CHEM. 217 B f and B s. *Electrochemistry Laboratory* (4)—Two laboratories, which must accompany or be preceded by Chem. 217 B f and B s. (Not given in 1935-1936.) (Haring.)

CHEM 218 y. *Chemical Thermodynamics* (4)—Two lectures.

A study of the methods of approaching chemical problems through the laws of energy. (Haring.)

CHEM. 219 f and s. *Physical Chemistry Laboratory* (4 or 6)—Two laboratories and one conference. Students taking this course may elect 6 credits of lectures in Chem. 102 A y to replace the conference. (Haring.)

CHEM. 220 f and s. *Research in Physical Chemistry*.

Open to students working for the higher degrees. Prerequisites, a bachelor's degree in chemistry or its equivalent, and consent of the instructor. (Haring.)

### E. Agricultural Chemistry

CHEM. 12 f or s. *Elements of Organic Chemistry* (5)—Three lectures; two laboratories. Prerequisite, Chem. 1 y.

The chemistry of carbon and its compounds. This course is particularly designed for students in Agriculture and Home Economics. The lectures can be taken without the laboratory.

CHEM. 13 s. *Agricultural Chemical Analysis* (3)—One lecture; two laboratories. Prerequisite, Chem. 1 y.

An introductory course in the analysis of agricultural products with special reference to the analysis of feeding stuffs, soils, fertilizers, and insecticides.

Chem. 14 s. *Chemistry of Textiles* (3)—Two lectures; one laboratory. Prerequisite, Chem. 12 f or s.

A study of the principal textile fibres, their chemical and mechanical structure. Chemical methods are given for identifying the various fibres and for a study of dyes and mordants.

### For Advanced Undergraduates and Graduates

Chem. 106 f or s. *Dairy Chemistry* (4)—One lecture; three laboratories. Prerequisite, Chem. 12 f or s.

Lectures and assigned reading on the constituents of dairy products. This course is designed to give the student a working knowledge and laboratory practice in dairy chemistry and analysis. Practice is given in examining dairy products for confirmation under the food laws, detection of watering, detection of preservatives and added colors, and the detection of adulterants. Students showing sufficient progress may take the second semester's work, and elect to isolate and make complete analysis of the fat or protein of milk. (McDonnell.)

Chem. 108 s. *General Physiological Chemistry* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 f or its equivalent.

This course is a study of the fundamental principles of human nutrition, the chemistry of foods, digestion, absorption, assimilation, tissue composition and excretion. The laboratory work consists of experiments in food analysis; salivary, gastric, pancreatic and intestinal digestion, and respiration. (Broughton.)

Chem. 115 f or s. *Organic Analysis* (4)—One lecture; three laboratories. Prerequisite, Chem. 12 f or s or 13 s.

This course gives a connected introductory training in organic analysis, especially as applied to plant and animal substances and their manufactured products. The greater part of the course is devoted to quantitative methods for food materials and related substances. Standard works and the publications of the Association of Official Agricultural Chemists are used freely as references. (Broughton.)

### For Graduates

Chem. 208 s. *Biological Analysis* (2)—Two laboratories.

A course in analytical methods of special value to students whose major field is the biological sciences. The work is varied to suit the needs or interests of the individual when possible. (Broughton and Supplee.)

Chem. 221 f or s. *Tissue Analysis* (3)—Three laboratories. Prerequisite, Chem. 12 f or s or its equivalent.

A discussion and the application of the analytical methods used in determining the inorganic and organic constituents of plant and animal tissue. (Broughton.)

Chem. 223 A f and A s. *Physiological Chemistry* (4)—Two lectures. Prerequisite, Chem. 12 f or s or its equivalent.

An advanced course in physiological chemistry. For the first semester the course consists of lectures and assigned reading on the constitution and reactions of proteins, fats, carbohydrates, and allied compounds of biological importance. The second semester will deal with enzyme action, digestion, absorption, metabolism, and excretion. (Broughton.)

Chem. 223 B f. *Physiological Chemistry Laboratory* (2). Prerequisites, Chem. 12 f or s and 13 s or the equivalent.

A laboratory course to accompany Chem. 223 A f. Qualitative and quantitative analysis of foods; salivary, gastric, pancreatic, and intestinal digestion; and respiration. (Broughton and Supplee.)

Chem. 224 f or s. *Special Problems* (4-8)—A total of eight credit hours may be obtained in this course by continuing the course for two semesters. Laboratory, library, and conference work amounting to a minimum of ten hours each week. Prerequisites, Chem. 223 A f and A s, and consent of instructor.

This course consists of studies of special methods, such as the separation of the fatty acids from a selected fat, the preparation of carbohydrates or amino acids, and the determination of the distribution of nitrogen in a protein. The students will choose, with the advice of the instructor, the particular problem to be studied. (Broughton.)

Chem. 226 f or s. *Toxicology* (3)—One lecture; two laboratories.

Theory and practice of the detection and estimation of toxic substances. The laboratory work includes alkaloids, toxic gases, and inorganic poisons. (McDonnell.)

Chem. 227 f and s. *Research in Agricultural Chemistry.*

Agricultural chemical problems will be assigned to graduate students who wish to gain an advanced degree. (Broughton.)

## F. Industrial Chemistry

### For Advanced Undergraduates and Graduates

Chem. 110 y. *Industrial Chemistry* (6)—Three lectures. Prerequisites, Chem. 6 y and 8 y.

A study of the principal chemical industries; plant inspection, trips, and reports; the preparation of a report on some chemical industry. (Machwart.)

Chem. 111 f. *Engineering Chemistry* (2 or 3)—Two lectures; one laboratory. This course may be taken with or without laboratory.

A study of the chemistry of engineering materials. (Machwart.)

Chem. 113 f and s. *Industrial Laboratory* (4)—Two laboratories. Prerequisite, consent of instructor.

Experiments typical of industrial operations. Examination of materials. (Machwart.)

CHEM. 120 f. *Elements of Chemical Engineering* (4)—Three lectures; one laboratory.

A theoretical discussion of heat transfer, pyrometry, liquid flow, humidity, air-conditioning, refrigeration, etc. (Machwart.)

### For Graduates

CHEM. 222 y. *Unit Operations* (6)—Three lectures. Prerequisite, consent of instructor.

A theoretical discussion of evaporation, distillation, filtration, etc. Problems. (Machwart.)

CHEM. 225 s. *Gas Analysis* (3)—One lecture; two laboratories. Prerequisite, consent of instructor.

Quantitative determination of common gases. Flue gas and water gas analysis, including calorific determinations of the latter. Problems. (Not given in 1935-1936.) (Machwart.)

CHEM. 228 f and s. *Research in Industrial Chemistry.*

The investigation of special problems and the preparation of a thesis towards an advanced degree. (Machwart.)

### G. History of Chemistry

CHEM. 121 y. *The History of Chemistry* (2)—One lecture. Prerequisite, Chem. 1 y and Chem. 8 y or their equivalent. (Required of senior students in the Department of Chemistry.)

The development of chemical knowledge and especially of the general doctrines of chemistry which have been gradually evolved, from their earliest beginnings up to the present day. (Broughton.)

### H. Chemistry Seminar

CHEM. 229 f and s. *Seminar* (2). Required of all graduate students in chemistry.

The students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (The Chemistry Staff.)

## DAIRY HUSBANDRY

PROFESSOR MEADE; ASSOCIATE PROFESSOR INGHAM; DR. ENGLAND.

D. H. 1 s. *Farm Dairying* (3)—Two lectures; one laboratory.

A general survey of the dairy industry. Types and breeds of dairy cattle, elementary judging, the history and development of major and minor dairy breeds, and the production and handling of milk on the farm. The composition of milk, the Babcock Test, the separation of milk on the farm, and the making of cottage cheese and butter on the farm.

D. H. 2 f. *Introductory Dairy Science* (2)—One lecture; one laboratory. Prerequisites, D. H. 1 s, Chem. 1 y.

The scientific and practical aspects of milk and its products. Special attention is given to the composition of milk and its physical and chemical properties, quantitative tests for various constituents, and qualitative tests for preservatives and adulterants. (England.)

### For Advanced Undergraduates and Graduates

### Dairy Production

D. H. 101 y. *Dairy Production* (6)—Two lectures; one laboratory.

A study of the care, feeding, breeding, and management of the dairy herd; dairy farm buildings and equipment; A. R. testing and herd improvement; bull associations; milking machines; sanitation and the production of clean, low bacteria count milk; dairy farm practices; fitting and showing dairy cattle; judging; record forms; pedigrees; regulations for the production of market milk; transportation; cooling and dairymen's marketing organizations. (Ingham.)

D. H. 102 s. *Advanced Dairy Cattle Judging*—Juniors-Seniors (1 or 2)—One laboratory.

One hour credit except for those who are selected to represent the University on the judging team. The persons composing the team and the alternate will each receive 2 hours credit.

Comparative judging of dairy cattle. Trips to various farms. Such dairy cattle judging teams as may be chosen to represent the University will be selected from among those taking this course. (Ingham.)

D. H. 103 s. *Advanced Study of Dairy Breeds* (2)—One lecture; one laboratory.

A study of the historical background, characteristics, noted individuals and families, and the more important blood lines in the Holstein, Guernsey, Ayrshire, and Jersey breeds. (Ingham.)

### Dairy Manufacturing

Students who choose dairy manufacturing as a major are urged to elect quantitative analysis, organic chemistry, and general bacteriology, in order that these courses may be completed by the end of the first semester of the junior year.

D. H. 105 f. *Dairy Manufacturing* (5)—Two lectures; two 4 hour laboratories. Prerequisite, D. H. 2 f, Bact. 1 or registration in Bact. 1.

The principles and practice of making casein, cheese, and butter, including a study of the physical, chemical, and biological factors involved. (England.)

D. H. 106 s. *Dairy Manufacturing* (5)—Two lectures; two 4 hour laboratories. Prerequisite, D. H. 2 f, Bact. 1 or registration in Bact. 1.

The principles and practice of making condensed milk and milk powders; and ice cream, including a study of the physical, chemical, and biological factors involved. (England.)

D. H. 107 f. *Market Milk* (5)—Three lectures; two laboratories. Prerequisite, D. H. 2 f, or Bact. 1.

Commercial and economic phases of market milk, with special reference to its improvement; milk as a food; shipping stations; transportation; pasteurization; clarification; standardization; refrigeration; certified milk; commercial buttermilk; acidophilus milk; milk laws; duties of milk inspectors; distribution; milk plant construction and operation. The laboratory practice will include visits to local dairies. (Not given in 1935-1936.) (England.)

D. H. 108 s. *Analysis of Dairy Products* (3)—One lecture; one 4 hour laboratory (consecutive). Prerequisite, D. H. 2 f, Chem. 4, Bact. 1.

The application of chemical and bacteriological methods to commercial dairy practice; analysis by standard chemical, bacteriological, and factory methods; standardization and composition control; tests for adulterants and preservatives. (England.)

D. H. 109 s. *Marketing and Grading Dairy Products* (2)—One lecture; one laboratory. Prerequisite, D. H. 2 f.

Dairy marketing from the standpoints, respectively, of producer, dealer, and consumer; market grades and the judging of dairy products. (England.)

### For Graduates

D. H. 201 f. *Advanced Dairy Production* (3).

A study of the newer discoveries in animal nutrition, breeding, and management. Readings and assignments. (Ingham.)

D. H. 202 f. *Dairy Technology* (2)—Two lectures.

A consideration of milk and dairy products from the physio-chemical point of view. (England.)

D. H. 203 y. *Milk Products* (2)—Two lectures.

An advanced consideration of the scientific and technical aspects of milk products. (England.)

D. H. 204 y. *Special Problems in Dairying* (4-6).

Special problems which relate specifically to the work the student is pursuing will be assigned. Credit will be given in accordance with the amount and character of work done. (Staff.)

D. H. 205 y. *Seminar* (2).

Students are required to prepare papers based upon current scientific publications relating to dairying or upon their research work for presentation before and discussion by the class. (Staff.)

D. H. 206 y. *Research*—Credit to be determined by the amount and quality of work done.

The student will be required to pursue, with the approval of the head of the department, an original investigation in some phase of dairy husbandry, carry the same to completion, and report results in the form of a thesis. (Meade, Ingham, England.)

## ECONOMICS AND SOCIOLOGY

Professor Brown; Assistant Professors Johnson, Wedeberg, Pilcher, Daniels; Mr. Bellman, Dr. Simmons, Miss Bradley.

### A. Economics

Soc. Sci. 1 y. *Introduction to the Social Sciences* (6)—One lecture; two discussions. Open to freshmen and sophomores only.

This course serves as an orientation to advanced work in the social sciences. In the first semester the basis, nature, and evolution of society and social institutions are studied. During the second semester major problems of modern citizenship are analyzed in terms of knowledge contributed by economics, history, political science, and sociology.

Econ. 1 f. *Economic Geography and Industry* (3)—Three lectures.

A study of the economic and political factors which are responsible for the location of industries, and which influence the production, distribution, and exchange of commodities throughout the world.

Econ. 2 s. *History of World Commerce* (3)—Three lectures.

Commercial development throughout the three major periods of history; viz., Ancient, Medieval, and Modern. Special emphasis is laid upon important changes brought about by the World War.

Econ. 3 y. *Principles of Economics* (6)—Three lectures. Prerequisite, sophomore standing.

A study of the general principles of economics—production, exchange, distribution, and consumption of wealth. The study is based upon a recent text, lectures, collateral readings, and student exercises.

Econ. 5 f or s. *Fundamentals of Economics* (3)—Three lectures. Required of students in the Colleges of Engineering and Agriculture.

A study of the general principles underlying economic activity. Not open to students having credit in Econ. 3 y.

Econ. 7 f. *Business Organization and Operation* (3)—Three lectures.

A study of the growth of large business organizations. Types of organizations are studied from the viewpoints of legal status, relative efficiency, and social effects.

### For Advanced Undergraduates and Graduates

Econ. 101 f. *Money and Credit* (2)—Two lectures. Prerequisite, Econ. 3 y or consent of the instructor.

A study of the origin, nature, and functions of money, monetary systems, credit and credit instruments, prices, interest rates, and exchanges. (Brown.)

Econ. 102 s. *Banking* (2)—Two lectures. Prerequisite, Econ. 101 f.

Principles and practice of banking in relation to business. Special emphasis upon the Federal Reserve System. (Brown.)

ECON. 103 f. *Corporation Finance* (2)—Two lectures. Prerequisite, Econ. 3 y.

Principles of financing, the corporation and its status before the law, basis of capitalization, sources of capital funds, sinking funds, distribution of surplus, causes of failures, reorganizations, and receiverships. (Brown.)

ECON. 104 s. *Investments* (3)—Three lectures. Prerequisite, Econ. 3 y and senior standing.

Principles of investment, analyzing reports, price determination, taxation of securities, corporation bonds, civil obligations, real estate securities, and miscellaneous investments. Lectures, library assignments, and chart studies. (Brown.)

ECON. 105 f. *Insurance* (2)—Two lectures. Prerequisite, Econ. 3 y.

A survey of the major principles and practices of life and property insurance with special reference to its relationship to our social and economic life. (Johnson.)

ECON. 107 f. *Business Law* (3)—Three lectures. Prerequisite, junior standing.

Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property, and sales. (Johnson.)

ECON. 108 s. *Business Law* (3)—Three lectures. Prerequisite, Econ. 107 f.

A continuation of Econ. 107 f. (Johnson.)

ECON. 109 y. *Principles of Accounting* (6)—Two lectures; one laboratory. Open to sophomores with the consent of the instructor.

This course has two aims; namely, to give the prospective business man an idea of accounting as a means of control, and to serve as a basic course for advanced and specialized accounting. Methods and procedure of accounting in the single proprietorship, partnership, and corporation are studied. (Wedeberg.)

ECON. 110 y. *Advanced Accounting* (6)—Three lectures. Prerequisite, Econ. 109 y.

A continuation of Econ. 109 y with emphasis upon the theory of accounting. Special phases of corporation accounting are studied. The introduction of accounting systems for manufacturing, commercial, and financial institutions. (Wedeberg.)

ECON. 112 s. *Land Transportation* (3)—Three lectures. Prerequisite, Econ. 3 y or Econ. 5 f or s. Not open to students who receive credit in A. E. 101 s.

The development of inland means of transportation in the United States. This course is devoted largely to a survey of railway transportation. Some study is given to other transportation agencies. (Daniels.)

ECON. 113 f. *Public Utilities* (2)—Two lectures. Prerequisite, Econ. 3 y.

The development of public utilities in the United States, economic and legal characteristics, regulatory agencies, valuation, rate of return, and public ownership. (Johnson.)

ECON. 114 s. *Public Finance* (3)—Three lectures. Prerequisite, Econ. 3 y.

The nature of public expenditures, sources of revenue, taxation, and budgeting. Special emphasis upon the practical, social, and economic problems involved. (Johnson.)

ECON. 116 s. *Principles of Foreign Trade* (3)—Three lectures. Prerequisites, Econ. 3 y, Econ. 1 f, and Econ. 2 s, or their equivalent.

The basic principles of import and export trade, as influenced by the differences in methods of conducting domestic and foreign commerce. (Daniels.)

ECON. 117 f. *History of Economic Theory* (2)—Two lectures. Prerequisite, Econ. 3 y and senior standing.

History of economic doctrines and theories from the eighteenth century to the modern period. (Johnson.)

ECON. 118 s. *History of Economic Theory* (2)—Two lectures. Prerequisite, Econ. 117 f or consent of instructor.

A continuation of Econ. 117 f. (Johnson.)

ECON. 119 f. *Advanced Economics* (2)—Two lectures. Prerequisite, Econ. 3 y and senior standing.

An analysis of the theories of contemporary economists. Special attention is given to the problems of value and distribution. (Brown.)

ECON. 120 s. *Applied Economics* (2)—Two lectures. Prerequisite, Econ. 119 f or consent of instructor.

Current economic problems are studied from the viewpoint of the economist. Lectures and class discussions based on assigned readings. (Brown.)

ECON. 122 s. *Cost Accounting* (2)—Two lectures. Prerequisite, Econ. 109 y and consent of instructor.

Process cost accounting; specific order cost accounting; manufacturing expense; application of accounting theory; preparation of analytical statements. (Wedeberg.)

ECON. 126 s. *Auditing* (2)—Two lectures. Prerequisite, Econ. 109 y and consent of the instructor.

Principles of auditing, including a study of different kinds of audits, the preparation of reports, and illustrative cases or problems. (Not given in 1935-1936.) (Wedeberg.)

### For Graduates

Econ. 201 y. *Research* (4-6). Credit proportioned to work accomplished. (Staff.)

Econ. 203 f and s. *Seminar* (4)—Prerequisite, consent of instructor.

Discussion of major problems in the field of economic theory. Presentation of reports based upon original investigations. Designed for students in the department of Economics. (Staff.)

Econ. 205 y. *History of Economic Doctrines* (4).

Development from classical antiquity with discussions of the different schools of economics. Extensive readings, with student reports. (Johnson.)

## B. Sociology

Soc. 1 f. *Principles of Sociology* (3)—Three lectures. Prerequisite, sophomore standing.

An analysis of community and social institutions; processes and products of human interaction; the relation between society and the individual; social change.

Soc. 2 s. *Cultural Anthropology* (2)—Two lectures. Prerequisite, sophomore standing.

An analysis of several primitive cultures and of modern society for the purpose of ascertaining the nature of culture, and culture processes. Museum exhibits will be correlated with class work.

### For Advanced Undergraduates and Graduates

Soc. 101 f. *Rural Sociology* (2)—Two lectures.

Historical approach to rural life; structure and functions of rural communities; rural institutions and their problems; psychology of rural life; statistical analysis of rural population; relation of rural life to the major social processes; the reshaping of rural life. (Simmons.)

Soc. 102 s. *Urban Sociology* (2)—Two lectures.

Historical survey of cities; statistical analysis of city groups; the nature and significance of the urbanization process; the social structure and functions of the city; urban personalities and groups; social change and problems due to the impact of the urban environment. (Simmons.)

Soc. 107 y. *Social Pathology and Social Work* (4)—Two lectures. Prerequisite, Soc. 1 f or consent of instructor.

Causative factors and social complications in individual and group pathological conditions; types of social work and institutional treatment; the theory and technic of social case work; visits to major social agencies. (Not given in 1935-1936.) (Simmons.)

Soc. 109 f. *Labor Problems* (2)—Two lectures. Prerequisite, Econ. 3 y or Soc. 1 f.

The background of labor problems; labor organizations; labor legislation; unemployment and its remedies; wages, working conditions, and standards of living; agencies and programs for the promotion of industrial peace. (Simmons.)

Soc. 110 s. *The Family* (2)—Two lectures. Prerequisite, Soc. 1 f.

Anthropological and historical backgrounds; biological, economic, psychological, and sociological bases of the family; the role of the family in personality development; family tension, maladjustment, and disorganization; family adjustment and social change. (Simmons.)

## EDUCATION

Professors Small, Cotterman, Sprowls, Mackert, Long;
Assistant Professor Brechbill; Miss Smith,
Mrs. James, Mrs. Barton, Miss Clough.

## A. History and Principles

Ed. 2 f. *Introduction to Teaching-A* (2)—Required of sophomores in Education.

A finding course, with the purpose of assisting students to decide whether they have qualities requisite to success in teaching. Study of the physical qualifications, personality traits, personal habits, use of English, speech, and habits of work; and of the nature of the teacher's work.

Ed. 3 s. *Introduction to Teaching-B* (2).

A continuation of Ed. 2 f.

Ed. 5 s. *Technic of Teaching* (2). Required of juniors in Education. Prerequisite, Ed. Psych. 1 f.

Educational objectives and outcomes of teaching; types of lesson; problem, project, and unit; measuring results and marking; socialization and directed study; classroom management. (Smith.)

Ed. 6 f. *Observation of Teaching* (1-2).

Observation and preliminary participation in the classes in which supervised teaching is to be done. Reports, conferences, and criticism. (Long, Brechbill, Smith, Barton.)

### For Advanced Undergraduates and Graduates

Ed. 101 f. *History of Education: Education in Europe to Approximately 1600 A. D.* (2). Prerequisite, senior standing.

A survey of the evolution in Europe of educational institutions, practices and theory from the Greco-Roman era and through the Christian era up to and including the Reformation. (Small.)

Ed. 102 s. *History of Modern Education* (2).

A continuation of Ed. 101 f. Attention is centered upon the creators of modern education and the development of education in America. (Small.)

Ed. 103 s. *Principles of Secondary Education* (3). Prerequisite, Ed. Psych. 1 f and Ed. 5 s.

Evolution of the high school; European secondary education; articulation of the high school with the elementary school, college, and technical school, and with the community and the home; the junior high school; high school pupils; programs of study and the reconstruction of curricula; teaching staff; student activities. (Brechbill.)

Ed. 105 f. *Educational Sociology* (3).

Education as social adjustment in foreign countries; major educational objectives; the function of educational institutions; the program of studies; objectives of school subjects; group needs and demands; methods of determining educational objectives. (Cotterman.)

Ed. 107 f or s. *Comparative Education* (3).

The forces that cause different systems of education, and the characteristic differences in the educational policies and practices in various countries are studied in this course. The major emphasis is upon certain European systems. (Long.)

Ed. 108 f or s. *Comparative Education* (3).

This course is similar to Ed. 107, an important difference being that education in Latin America receives major attention. (Long.)

Ed. 110 f. *The Junior High School* (3).

This course considers the functions of the junior high school in the American public school system. Its development, present organization, curricula, and relation to upper and lower grades will be emphasized. (Long.)

Ed. 111 f. *Lives of Scientists* (2).

A study of the major achievements and interesting incidents in the lives of the pioneers of science. Though designed especially to provide enrichment material for the use of high school teachers, the course is of general cultural value. (Brechbill.)

Ag. Ed. 106 s. *Rural Life and Education* (3). (See Rural Life and Agricultural Education.)

### For Graduates

Ed. 200 f. *Organization and Administration of Public Education* (3).

This course deals objectively with the organization, administration, curricula, and present status of public education in the United States. (Small.)

Ed. 201 s. *Educational Interpretations* (3).

In this course a study is made of the social, economic, political, and cultural environment in which American educational institutions and policies have developed; and of the function of education in environmental change. (Small.)

Ed. 202 s. *Higher Education in the United States* (3). One seminar period.

European backgrounds of American higher education; the development of higher education in the United States; present day adjustment movements in college; points of view in college teaching; uses of intelligence and other standardized tests; short answer examinations; course construction. (Cotterman.)

Ed. 204 s. *High School Administration and Supervision.* (3).

This course will consider the principal's duties in relation to organization for operation, administration, and supervision of instruction, and community relationships. (Long.)

Ed. 206 s. *History of American Education to 1850* (3).

The development of the public school in America up to 1850. (Long.)

Ed. 250 y. *Seminar in Education* (2-4).

Required of all candidates for the Master's degree whose majors are in the field of education. (Staff.)

(For additional courses see Rural Life and Agricultural Education and Home Economics Education.)

## B. Educational Psychology

Ed. Psych. 1 f. *Educational Psychology* (3). Required of all juniors in Education.

The laws of learning and habit formation in their application to teaching in the high school; types of learning and their relation to types of subject matter; psychological principles involved in lesson assignments, tests, examinations; individual differences; incentives and discipline; mental hygiene in relation to personality problems and classroom instruction.

### For Advanced Undergraduates and Graduates

Ed. Psych. 101 s. *Advanced Educational Psychology* (3). Prerequisites, Ed. Psych. 1 f and Ed. 5 s. The latter may be taken concurrently with Ed. Psych. 101 s.

Principles of genetic psychology; nature and development of the human organism; development and control of instincts. Methods of testing intelligence; group and individual differences and their relation to educational practice. Methods of measuring rate of learning; study of typical learning experiments. (Sprowls.)

Ed. Psych. 102 f. *Educational Measurements* (3). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

A study of typical educational problems involving educational scales and standard tests. Nature of tests, methods of use, analysis of results and practical applications in educational procedure. Emphasis will be upon tests for high school subjects. (Brechbill.)

**Ed. Psych. 105 s.** *Mental Hygiene* (3). Prerequisite, Ed. Psych. 1 f or Psych. 1 f or s or equivalent.

Normal tendencies in the development of character and personality. Solving problems of adjustment to school and society; obsessions, fears, compulsions, conflicts, inhibitions, and compensations. Methods of personality analysis. (Sprowls.)

### For Graduates

**Ed. Psych. 200 y.** *Systematic Educational Psychology* (6).

An advanced course for teachers and prospective teachers. It deals with the major contributions of psychologists from Herbart to Watson to educational theory and practice. (Sprowls.)

**Ed. Psych. 250 y.** *Seminar.*

## C. Methods in High School Subjects

### For Advanced Undergraduates and Graduates

Graduate credit for courses in this section will be given only by special permission of the College of Education.

**Ed. 120 s.** *English in the High School* (2). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

Objectives in English in the different types of high schools; selection and organization of subject matter in terms of modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Smith.)

**Ed. 121 f or s.** *Supervised Teaching of English.* (2).

Observation and supervised teaching. Minimum of 20 teaching periods required. (Smith.)

**Ed. 122 s.** *The Social Studies in the High School* (2). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

Selection and organization of subject matter in relation to the objectives and present trends in the social studies; texts and bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Long.)

**Ed. 123 f or s.** *Supervised Teaching of the Social Studies* (2).

Observation and supervised teaching. Minimum of 20 teaching periods required. (Long.)

**Ed. 124 s.** *Modern Language in the High School* (2). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

Objectives of modern language teaching in the high school; selection and organization of subject matter in relation to modern practice and group needs; evaluation of texts and references; bibliographies. Methods of procedure and types of lessons; lesson plans; special devices; measuring results. (Barton.)

**Ed. 125 f or s.** *Supervised Teaching of Modern Language* (2).

Observation and supervised teaching. Minimum of 20 teaching periods required. (Barton.)

**Ed. 126 s.** *Science in the High School* (2). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

Objectives of science teaching, their relation to the general objectives of secondary education; application of the principles of psychology and of teaching to the science class room situation; selection and organization of subject matter; history, trends, and status; textbooks, reference works, and laboratory equipment. Technic of class room and laboratory; measurement, standardized tests; professional organizations and literature; observation and criticism. (Brechbill.)

**Ed. 127 f or s.** *Supervised Teaching of Science* (2).

Observation and supervised teaching. Minimum of 20 teaching periods. (Brechbill.)

**Ed. 128 s.** *Mathematics in the High School* (2). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

Objectives; the place of mathematics in secondary education; content and construction of courses; recent trends; textbooks and equipment; methods of instruction; measurement and standardized tests; professional organizations and literature; observation and criticism. (Brechbill.)

**Ed. 129 f or s.** *Supervised Teaching of Mathematics* (2).

Observation and supervised teaching. Minimum of 20 teaching periods. (Brechbill.)

**Ed. 130 f.** *High School Course of Study—Composition* (2).

Content and organization of the materials of written and oral composition in the several high school grades. (Smith.)

**Ed. 131 s.** *High School Course of Study—Literature* (2).

Content and organization of the literature course in the several high school grades. (Smith.)

**Ed. 135 f.** *High School Course of Study—Geometry* (2).

Content and organization of intuitive and demonstrative geometry. Methods of analysis and problem solving. (Brechbill.)

**Ed. 136 f.** *High School Course of Study—Biology* (2).

Content and organization of biology. (Brechbill.)

**Ed. 137 s.** *High School Course of Study—Physical Science.* (2).

Content and organization of physics. Some consideration is given to content of chemistry. (Brechbill.)

**Ed. 140 y.** *Physical Education Activities for High School Girls* (4).

Required of juniors with Physical Education major or minor.

The principles and practices of activities appropriate for both class work and extra-curriculum programs in senior and junior high schools. (James.)

**Ed. 141 f.** *Physical Education in the High School* (Boys) (3)—Prerequisites, Ed. Psych. 1 f, Ed. 5 s, Phys. Ed. 25 y.

Objectives of physical education for high school boys; lesson planning; problem cases; methods of handling classes, meets, pageants, and the like; physical and medical examinations; care of equipment; records; grading. (Mackert.)

**Ed. 142 f.** *Physical Education in the High School* (Girls) (3)—Prerequisites, Ed. Psych. 1 f, Ed. 5 s, Ed. 140 y.

Objectives in physical education for girls in the different types of high schools; programs appropriate to high school girls; selection and organization of subject matter; lesson plans. (James.)

**Ed. 143 f or s.** *Supervised Teaching of Physical Education* (Boys) (2). Observation and supervised teaching. Minimum of 20 class periods. (Mackert.)

**Ed. 144 f or s.** *Supervised Teaching of Physical Education* (Girls) (2). Observation and supervised teaching. 20 class periods. (James.)

**Ed. 150 f; Ed. 151 s.** *Commercial Subjects in the High School* (4, 2). Prerequisites, Ed. Psych. 1 f and Ed. 5 s.

Aims and methods for the teaching of shorthand, typewriting, and bookkeeping in high schools.

**Ed. 153 s.** *Supervised Teaching of Commercial Subjects* (3).

Observation and supervised teaching. Minimum of 20 teaching periods.

## HOME ECONOMICS EDUCATION

Professor McNaughton.

**H. E. Ed. 5 s.** *Technic of Teaching* (2). Minimum of 20 class periods. Required of juniors in Home Economics Education. Prerequisite, Ed. Psych. 1 f.

Philosophy of vocational education and of home economics education; objectives for teaching home economics in high school; analysis of interests and responsibilities of the high school girl; selection of units; application of psychological principles; use of the problem, discussion, demonstration, and laboratory methods; organization of discussion and laboratory lessons; the home project; measuring results; organization of lessons; construction of units. (McNaughton.)

**H. E. Ed. 6 s.** *Observation of Teaching* (1-2).

Classroom management; individual differences; types of lessons; observations and critiques; conferences. (McNaughton.)

### For Advanced Undergraduates and Graduates

**H. E. Ed. 101 s.** *Child Psychology* (3). Open to juniors.

Study of the nervous system; the glandular system; development of sensations; habit formation; emotional controls. (McNaughton.)

**H. E. Ed. 102 f.** *Child Study* (4).

The study of child development in relation to the physical, mental, and educational phases of growth; study of textbooks and magazines; adaptation of material to teaching of child care in high school; observation and participation in University Nursery School. (McNaughton.)

**H. E. Ed. 103 f.** *Teaching Secondary Vocational Home Economics: Methods and Practice* (4). Prerequisite, H. E. Ed. 5 s.

A survey of the needs of the high school girl; adaptation of the state course of study to the needs of the community; methods of instruction; use of home project; use of illustrative material; improvement of home economics library; study of equipment; outline units of instruction; observation; teaching; conferences and critiques. (McNaughton.)

**H. E. Ed. 105 f or s.** *Special Problems in Child Study* (5)—Open to seniors. Prerequisite, H. E. Ed. 102 f.

Methods and practice in Nursery School work in University Nursery School. (McNaughton.)

**H. E. Ed. 106 s.** *Problems in Teaching Home Economics* (1).

Problems in classroom instruction; planning for laboratory work; analysis of textbooks; evaluation of illustrative material; teaching of special units; study of various methods for organization of class period. (McNaughton.)

### For Graduates

**H. E. Ed. 201 f or s.** *Advanced Methods of Teaching Home Economics* (2-4).

Study of social trends as applied to the teaching of home economics. (McNaughton).

**H. E. Ed. 250 y.** *Seminar in Home Economics Education* (2-4). (See Ed. 250 y.) (McNaughton.)

**H. E. Ed. 251 y.** *Research* (2-4)—Credit hours according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (McNaughton.)

## RURAL LIFE AND AGRICULTURAL EDUCATION

Professors Cotterman, Carpenter; Mr. Worthington, Mr. Hauver.

### For Advanced Undergraduates and Graduates

**R. Ed. 101 f.** *Farm Practicums and Demonstrations* (1)—One laboratory. Cannot be used for graduate credit.

This course is designed to assist the student in relating the learning acquired in the several departments of the University with the problems of doing and demonstrating which he faces in the field and in the classroom as a teacher. It aims particularly to check his training in the essential practicums and demonstrations in vocational agriculture and to introduce him to the conditions under which such activities must be carried on in the patronage areas and laboratories of vocational departments. It treats of objectives, organization, equipment, and equipment construction. Laboratory practice in deficiencies required. Special assignments and reports. (Hauver.)

R. Ed. 102 s. *Farm Practicums and Demonstrations* (1)—One laboratory. Cannot be used for graduate credit.

Continuation of R. Ed. 101 f. (Hauver.)

R. Ed. 104 s. *Rural Life and Education* (3)—Three lectures.

Dynamics of life; changing rural communities; possibilities of normal life in rural areas; ancient and foreign rural communities; evolution of American rural communities; the home, church, school, community, state, governmental and other volunteer organizations as a response to human aspiration and realization; the place of elementary, secondary, and higher education in rural life endeavors; educational objectives of fairs and similar agencies; tendencies in high grade rural living; the conditioning effect of economic differences; investigations and reports. This course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people. (Cotterman.)

R. Ed. 105 f. *Project Organization and Cost Accounting* (2)—Two lectures.

The development of project programs in terms of placement opportunities, project forecasting as a form of motivation; project estimating in terms of cost factors; systems of project cost accounting; practice in project accounting, problems in estimating; sources of standards which may be used as bases in estimating; and the relation of the whole to farm estimating and planning, as well as to other forms of course work in vocational agriculture. (Worthington.)

R. Ed. 107 f. Observation and the analysis of teaching for agricultural students (3)—Two lectures; one laboratory. Prerequisite, Ed. Psych. 1 f. Open to juniors and seniors; required of seniors in rural life and agricultural education.

This course deals with an analysis of pupil learning in class groups. It includes a study of pupil and teacher objectives; objectives in secondary education; objectives in vocational education; objectives in vocational agricultural education; individual differences; varying elements in class and classroom situations; lesson patterns; pupil activities and procedures in the class period; measuring results; steps in teaching procedure; types of lessons; classroom management; observation and critiques. (Cotterman.)

R. Ed. 109 f. *Teaching Secondary Vocational Agriculture* (3)—Three lectures. Prerequisites, R. Ed. 105 f, 107 f; A. H. 1, 2; D. H. 1; Poultry 1; Soils 1; Agron. 1, 2; Hort. 1, 11; F. Mech. 101, 104; A. E. 2, 102; F. M. 2.

Types of vocational schools and classes; activities of high school departments of vocational agriculture; the development of day class courses; methods, approaches, objectives, and goals in day class instruction; the administration of projects and other forms of directed and supervised practice in day classes; objectives, course content, and methods in evening and part-time classes; equipment; extra-curricular activities of vocational departments; advisory committees and departmental goals; cooperative relationships; departmental administrative programs; ways of measuring results; publicity; records and reports. (Cotterman.)

R. Ed. 112 s. *Departmental Organization and Administration* (2)—Two lectures. Prerequisites, R. Ed. 105 f, 107 f, 109 f.

The work of this course is based upon the construction and analysis of administrative programs for high school departments of vocational agriculture. As a project each student prepares and analyzes in detail an administrative program for a specific school. Investigations and reports. (Worthington.)

R. Ed. 114 s. *Teaching Farm Shop in Secondary Schools* (1)—One lecture.

Objectives in the teaching of farm shop; contemporary developments; determination of projects; shop management; shop programs; methods of teaching; equipment; materials of instruction; special projects. (Carpenter.)

R. Ed. 120 f or s. *Practice Teaching* (2)—Prerequisites, R. Ed. 105 f, 107 f, 109 f.

Under the immediate direction of a critic teacher the student in this course is required to analyze and prepare special units of subject matter, plan lessons, and teach in cooperation with the critic teacher, exclusive of observation, not less than twenty periods of vocational agriculture. (Cotterman and Worthington.)

*Ed. 105 f. *Educational Sociology* (3).

### For Graduates

R. Ed. 201 f. *Rural Life and Education* (3)—Prerequisite, R. Ed. 104 s, or equivalent.

A sociological approach to rural education as a movement for a good life in rural communities. It embraces a study of the organization, administration, and supervision of the several agencies of public education as component parts of this movement and as forms of social economy and human development. Discussions, assigned readings, and major term papers in the field of the student's special interest. (Cotterman.)

R. Ed. 202 s. *Rural Life and Education* (3)—Prerequisite, R. Ed. 104 s. Continuation of R. Ed. 201 f. (Cotterman.)

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* See courses under Education.

R. Ed. 207 y. *Problems in Vocational Agriculture, Related Science, and Shop* (2-4).

In this course special emphasis is placed upon the current problems facing teachers of vocational agriculture. It is designed especially for persons who have had several years of teaching experience in this field. The three phases of the vocational teacher's program—all day, part-time, and adult work—receive attention. Discussions, surveys, investigations, and reports. (Cotterman.)

R. Ed. 250 y. *Seminar in Rural Education* (2-4).

Problems in the organization, administration, and supervision of the several agencies of rural education. Investigations, papers, and reports. (Cotterman.)

R. Ed. 251 y. *Research* (2-4)—Credit hours according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Cotterman.)

Ed. 202 s. *Higher Education in the United States* (3)—(See Education).

Graduate courses especially designed to meet the needs of extension and vocational workers are being arranged for summer sessions in connection with this Department. These courses will be given in cooperation with the Office of Education, the United States Department of Agriculture, the Extension Service, and other rural education agencies. The special course in Extension Education will not be available until the summer of 1936.

## PHYSICAL EDUCATION

### A. Physical Education for Men

Professor Mackert and Student Assistants

*Phys. Ed. 1 y. *Physical Activities* (2).

An activities course for freshman boys meeting three periods a week throughout the year. Activities included are soccer, touch football, basketball, volleyball, baseball (soft), track, and natural gymnastics.

*Phys. Ed. 3 y. *Physical Activities* (4).

An activities course for sophomore boys meeting three periods a week throughout the year. Activities included are soccer, touch football, basketball, volleyball, track (indoor and outdoor), baseball (soft and hard), fencing, wrestling, boxing, ping pong, horseshoes, tennis, and natural gymnastics.

Phys. Ed. 5 y. *Physical Education Practice* (4).

An activities course required of junior men meeting three periods a week throughout the year. Activities included are gymnastics, stunts, tumbling, apparatus, games, and calisthenics.

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* Students who are registered in the College of Education, or in Rural Life and Agricultural Education or Arts and Science Education curricula, and whose major or minor is Physical Education may take both Basic Military and first and second year Physical Education courses for credit. In all other curricula credit will be allowed for either Basic Military or first and second year Physical Education, but not for both.

Phys. Ed. 11 y. *Personal and Community Hygiene* (4).

Freshman course required of men whose major is physical education and open to other freshmen and sophomores.

This course is designed to help the incoming student live at his best and to realize the finest ideals of his group.

Phys. Ed. 13 y. *Coaching High School Athletics* (4).

Junior course required of men whose major is physical education; elective for other junior and senior students.

Football, soccer, basketball, track, and baseball are analyzed from the point of view of successful team play on an interscholastic basis. The management of athletics is studied thoroughly.

Phys. Ed. 15 A y. *Management of Intramural Athletics* (4).

A senior course required of men whose major is physical education.

It is designed to give the student practice in supervising, directing, and planning the intramural program.

Prerequisite: three years of successful participation in intramural athletics.

Phys. Ed. 21 y. *Survey of Physical Education* (4).

Sophomore course required of men whose major is physical education; elective for other students.

This course is an introduction to the study of physical education. It includes a survey of the possibilities of the profession.

Phys. Ed. 23 y. *Technics of Teaching Physical Education* (4).

Junior course required of men whose major is physical education.

A thorough study of the physiological and psychological aspects of instruction in the performance of physical activities.

Ed. 141 f. *Physical Education in the High School* (Boys) (3).

Ed. 143 f or s. *Supervised Teaching of Physical Education* (Boys) (2).

#### For Graduates

**Phys. Ed. 201 y. *Administration of Health and Physical Education* (6).

This course is designed to aid in solving the multitude of problems that arise in the administration of health and physical education in public schools. An attempt will be made to set up standards for evaluating the effectiveness of programs of health and physical education.

### B. Physical Education for Women

Miss Stamp, Mrs. James, Dr. Karpeles, Miss Gingell

Phys. Ed. 2 y. *Personal Hygiene* (1).

Freshman course required of all women.

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**Open to men and women.

This course consists of instruction in hygiene one period a week throughout the year. The health ideal and its attainments, care of the body relative to diet, exercise, sleep, bathing, etc., and social hygiene.

PHYS. ED. 4 y. *Physical Activities* (1).

Freshman course required of all women.

This is an activities course, which meets two periods a week throughout the year. It will present the following phases of physical education: sports, such as hockey, soccer, basketball, baseball, speedball, archery, and volleyball; natural activities, such as tumbling and stunts; and dancing, such as clog, folk, and athletic.

PHYS. ED. 6 y. *Personal Hygiene* (2).

Sophomore course required of all women.

This course is a continuation of the freshman course. The work in hygiene includes the elements of physiology, the elements of home, school, and community hygiene, and a continuation of social hygiene.

PHYS. ED. 8 y. *Physical Activities* (2).

Sophomore course required of all women.

This course is a continuation of the work of the freshman year. In addition to the regular work, the student is permitted to elect clog, folk, or natural dancing.

†PHYS. ED. 10 y. *Fundamentals of Rhythm and Dance* (2)—One lecture a week. Required of all freshman students planning to make physical education a major, and open to other freshmen, sophomores, juniors, and seniors.

The fundamentals of rhythm, principles of class organization, suggested lesson plans for teaching various types of dancing, as well as the aims and objectives of creative dancing will be presented in this course.

PHYS. ED. 12 f. *Games* (2).

Required of all sophomores whose major is physical education, and open to other undergraduates.

This course will aim to present games and stunts suitable for the elementary school and recreational groups. Both theory and practice will be offered.

†PHYS. ED. 16 s. *First Aid* (1).

This course is required of all juniors whose major is physical education. It presents the fundamentals necessary for caring for accidents and injuries until medical attention can be secured. Practical work will be required of all students.

PHYS. ED. 18 A f; 18 B s. *Athletics* (2-2).

Required one semester of all juniors whose major is physical education, and open to other juniors and seniors.

This course includes one lecture a week, and two periods of practical work each semester. The practical work is organized in a series of sport units, four for each semester, as shown below and designated as "practical sections." Any three of the four may be selected.

First semester (18 f): hockey, soccer, fieldball, basketball. Second semester (18 s): volleyball and handball, speedball, archery, baseball. Instruction will be given in the theory, practice, organization, and teaching of each sport.

PHYS. ED. 20 s. *Natural Gynastics* (2).

Required of all sophomores with a major in physical education.

This course presents stunts, games, and self-testing activities based upon fundamental movements which are inherent in the race. Teaching technics will be considered and material offered which is suitable to varying age groups.

PHYS. ED. 22 s. *Organization of Athletic Activities for Girls* (2).

This course is open to seniors with a major in physical education.

A lecture course dealing with the organization of material and the developing of athletic activities for girls in such situations as camp, school, and playground.

PHYS. ED. 26 y. *Coaching and Officiating; Athletics for Girls* (4).

This course is open to seniors with a major in physical education. It trains the student to coach and officiate in women's athletics. Opportunity is given for the student to apply practically the theory and methods which she has learned in this class.

†PHYS. ED. 28 f. *Clogs and Athletic Dances* (2).

Two practical classes a week. Required of all sophomores planning to make physical education a major, and open to other sophomores, juniors, and seniors.

This course includes suitable teaching material for both high school boys and girls.

Tap shoes are required.

†PHYS. ED. 30 s. *Folk Dancing* (2). Two practical classes a week. Required of all sophomores planning to make physical education a major, and open to other sophomores, juniors, and seniors.

This course includes folk dances of various countries.

†PHYS. ED. 32 f or s. *Natural Dancing* (2). Two practical classes a week. This course is required of all juniors planning to make physical education a major, and is open to other juniors and seniors.

This course consists of a type of dancing based upon free and natural movements, such as skipping, walking, and running.

A special costume is required.

ED. 140 y. *Physical Education Activities for High School Girls* (4).

ED. 142 f. *Physical Education in the High Schools* (Girls) (3).

ED. 144 s. *Supervised Teaching of Physical Education* (Girls) (2).

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†Open to men and women.

# ENGINEERING

PROFESSORS JOHNSON, CREESE, STEINBERG, NESBIT; ASSOCIATE PROFESSOR HODGINS; ASSISTANT PROFESSORS HOSHALL, BAILEY, PYLE, ALLEN; DR. RESSER, MR. HENNICK.

## Civil Engineering

C. E. 101 f. *Elements of Railroads* (3)—Two lectures; one laboratory. Prerequisite, Surv. 2 y. Required of juniors in Civil Engineering.

The theory and practice of railroad surveys, alignment and earthwork. Preliminary steps toward complete plans for a short railroad. (Allen.)

C. E. 102 s. *Elements, Design of Structures* (5)—Three lectures; two laboratories. Prerequisite, Mech. 2 y. Required of juniors in Civil Engineering.

The theory and elementary design of masonry and steel structures, including plain and reinforced concrete. Analysis of stresses in beams, columns, retaining walls, dams, roof trusses, plate girders, and bridges. (Steinberg.)

C. E. 104 y. *Buildings, Masonry and Steel* (8)—Three lectures; one laboratory. Prerequisite, C. E. 102 s. Required of seniors in Civil Engineering.

A continuation of C. E. 102 s with particular application to the design of buildings both of masonry and of steel. (Allen.)

C. E. 105 y. *Bridges, Masonry and Steel* (8)—Three lectures; one laboratory. Prerequisite, C. E. 102 s. Required of seniors in Civil Engineering.

A continuation of C. E. 102 s with particular application to the design of bridges both of masonry and of steel. (Steinberg.)

C. E. 106 f. *Highways* (4)—Three lectures; one laboratory. Prerequisites, Surv. 101 f, Mech. 2 y. Required of seniors in Civil Engineering.

Location, construction, and maintenance of roads and pavements. Highway contracts and specifications, estimates and costs, highway work, highway legislation, highway economics, and highway transportation. The course will include, in addition to lecture and classroom work, field inspection trips. (Johnson and Steinberg.)

C. E. 107 y. *Sanitation* (6)—Three lectures. Prerequisite, Mech. 2 y. Required of seniors in Civil Engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Pyle.)

C. E. 108 s. *Thesis* (3)—Required of seniors in Civil Engineering.

In this course the student selects, with faculty approval, a subject in Civil Engineering design or research. He makes such field or laboratory studies as may be needed. Weekly reports of progress are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report is required to complete the work. (Johnson.)

## Drafting

DR. 1 y. *Engineering Drafting* (2)—One laboratory. Required of all freshmen in Engineering.

*Freehand Drawing*—Lettering, exercises in sketching of technical illustrations and objects, proportion and comparative measurements.

*Mechanical Drawing*—Use of instruments, projections and working drawings, drawing to scale in pencil and in ink, topographic drawing, tracing and blueprinting.

DR. 2 y. *Descriptive Geometry* (4)—Two laboratory periods. Prerequisite, Dr. 1 y. Required of all sophomores in Engineering.

Orthographic projection as applied to the solution of problems relating to the point, line, and plane, intersection of planes with solids, and development. Generation of surfaces; planes, tangent and normal to surfaces; intersection and development of curved surfaces. Shades, shadows, and perspective.

## Electrical Engineering

E. E. 101 y. *Principles of Electrical Engineering* (8)—Three lectures; one laboratory. Prerequisites, Phys. 2 y, Math. 6 y. Required of seniors in Mechanical Engineering.

Study of elementary direct current and alternating current characteristics. Principles of construction and operation of direct and alternating current machinery.

Experiments on the operation and characteristics of generators, motors, transformers, and control equipment. (Creese.)

E. E. 102 y. *Direct Currents* (10)—Three lectures; two laboratories. Prerequisites, Phys. 2 y and Math. 6 y.

Principles of design, construction, and operation of direct current generators and motors and direct current control apparatus. The construction, characteristics, and operation of primary and secondary batteries and the auxiliary control equipment. Study of elementary alternating current circuits.

Experiments on the calibration of laboratory instruments, the manipulation of precision instruments, battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 103 y. *Electrical Machine Design* (2)—One laboratory. Prerequisites, Phys. 2 y, Math. 6 y, and to take concurrently with E. E. 102 y.

Materials of construction and design of the electric and magnetic circuits of direct current generators and motors. (Hodgins.)

E. E. 104 y. *Alternating Currents* (10)—Three lectures; two laboratories. Prerequisite, E. E. 102 y.

Analytical and graphic solution of problems on single phase and polyphase circuits; construction, characteristics, and operation of all types of alternating current generators and motors; switchboard appliances, the use of the oscillograph; alternating current power measurements. (Creese.)

E. E. 105 y. *Electrical Machine Design* (3)—One laboratory first semester; two laboratories second semester. Prerequisites, E. E. 103 y, M. E. 101 f, and to take concurrently E. E. 104 y.

Materials of construction and design of the electric and magnetic circuits of alternating current generators, motors, and transformers. (Hodgins.)

E. E. 106 y. *Electric Railways and Electric Power Transmission* (7)—Three lectures first semester; four lectures second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Traffic studies, train schedules, motor characteristics, and the development of speed-distance and power-time curves, systems of control, motors and other railway equipment, electrification system for electric railways, including generating apparatus, transmission lines, substations and distribution of electrical energy for car operation; electrification of steam roads and application of signal systems, problems in operation from the selection of proper car equipment to the substation apparatus.

Survey of the electrical equipment required in central stations and substations, transmission of electric power, practical problems illustrating the principles of installation and operation of power machinery. (Hodgins.)

E. E. 107 y. *Telephones and Telegraphs* (7)—Three lectures first semester; three lectures and one laboratory second semester. Prerequisites, E. E. 102 y, and to take concurrently E. E. 104 y.

History and principles of magneto telephone and variable resistance transmitter, carbon transmitter, telephone receiver, induction coils, and calling equipment. These components of the telephone then are studied as a complete unit in the local battery and common battery telephones. Magneto and common battery switchboards used in telephone exchanges, automatic telephones, and the operation of simple, duplex, and quadruplex telegraphy. Solution of analytical problems on telephone transmission. In the laboratory the units are assembled and operated. (Hodgins.)

E. E. 108 y. *Radio Telegraphy and Telephony* (7)—Two lectures and one laboratory first semester; three lectures and one laboratory second semester. Prerequisites, E. E. 102 y, and to take concurrently E. E. 104 y.

Principles of radio telegraphy and telephony, design, construction, and operation of transmitting and receiving apparatus, and special study of the use of the vacuum tube for short wave transmitting and receiving. Experiments include radio frequency measurements and the testing of various types of receiving circuits. (Creese.)

E. E. 109 y. *Illumination* (7)—Three lectures first semester; three lectures and one laboratory second semester. Prerequisites, E. E. 102 y, and to take concurrently E. E. 104 y.

Series systems of distribution, methods of street lighting, calculation of voltage drop, regulation, weights of wire and methods of feeding parallel

systems, principles and units used in illumination problems, lamps and reflectors, candle-power measurements of lamps, measurements of illumination intensities, and calculations for illumination of laboratories and classrooms. (Creese.)

### General Engineering Subjects

ENGR. 1 y. *Prime Movers* (4)—Two lectures. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Civil Engineering.

Salient features of the operation of steam, gas, hydraulic and electric prime movers and pumps. Comparison of types of each, methods of assembling or setting up in place for operation. Service tests. (Bailey.)

ENGR. 2 y. *Prime Movers* (4)—Two lectures. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Electrical Engineering.

This course is similar in content to Engr. 1 y, but with greater emphasis placed on details preparatory to work in thermodynamic problems in the senior year. (Bailey.)

ENGR. 3 y. *Engineering Geology* (2)—One lecture. Lectures and field trips. Required of all juniors in Engineering.

Study of common rocks and minerals, geologic processes and conditions affecting problems of water supply, bridge, railroad, and highway construction, dams and reservoirs, tunnels, canals, river and harbor improvements, irrigation works, and rock excavation. (Resser.)

ENGR. 101 s. *Engineering Economy* (1)—One lecture. Required of all seniors in Engineering.

A study of the economic aspects of an engineering decision; including segregation of costs and cost analysis, technic of estimating costs, and comparisons of ultimate economy. (Steinberg.)

ENGR. 102 s. *Engineering Jurisprudence* (1)—One lecture. Required of all seniors in Engineering.

A study of the fundamental principles of law relating to business and to engineering; including contracts, agency, sales, negotiable instruments, corporations, and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications. (Steinberg.)

### Mechanics

MECH. 1 y. *Engineering Mechanics* (7)—Three lectures and one laboratory first semester; two lectures and one laboratory second semester. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Electrical and Mechanical Engineering.

*Applied Mechanics*—The analytical study of statics dealing with the composition and resolution of forces, moments and couples, machines and the laws of friction, dynamics, work, energy, and the strength of materials.

*Graphic Statics*—The graphic solution of problems in mechanics, center of gravity, moments of inertia and determination of stresses in frame structures.

*Elements of Hydraulics*—Flow of water in pipes, through orifices and in open channels. Determination of the co-efficient of discharge, velocity, and contraction in pipes and orifices. (Allen and Bailey.)

MECH. 2 y. *Engineering Mechanics* (9)—Four lectures and one laboratory first semester; three lectures and one laboratory second semester. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Civil Engineering.

This course is similar in content to Mech. 1 y, but with greater emphasis placed on strength of material and hydraulics. (Steinberg and Allen.)

MECH. 3 s. *Materials of Engineering* (2)—One lecture; one laboratory. To be taken concurrently with Engineering Mechanics. Required of all juniors in Engineering.

The composition, manufacture, and properties of the principal materials used in engineering and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement, and concrete. (Johnson, Pyle, and Hoshall.)

MECH. 101 f. *Thermodynamics* (3)—Three lectures. Prerequisites, Phys. 2 y and Engr. 1 y. Required of seniors in Electrical Engineering. (Bailey.)

MECH. 102 y. *Thermodynamics* (6)—Three lectures. Prerequisite, Phys. 2 y. Required of juniors in Mechanical Engineering.

Thermodynamics as applied to properties of gases, cycles of heat, engines using gases. Properties of vapors. Entropy. The internal combustion engine. The steam turbine. Flow of fluids, and the application of thermodynamics to compressed air and refrigerating machinery. (Bailey.)

### Mechanical Engineering

M. E. 101 f. *Elements of Machine Design* (1)—One laboratory. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Electrical Engineering.

Empirical design of machine parts. (Bailey.)

M. E. 102 y. *Kinematics and Machine Design* (7)—Two lectures, one laboratory first semester; three lectures, one laboratory second semester. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Mechanical Engineering.

The application of the principles involved in determining the properties and forms of machine parts. The design of bolts, screws, shafting, and gears. The theory and practice of the kinematics of machinery, as applied to ropes, belts, chains, gears and gear teeth, wheels in trains, epicyclic trains, cams, linkwood, parallel motions. Miscellaneous mechanisms and aggregate combinations. (Hoshall.)

M. E. 103 s. *Internal Combustion Engines* (3)—Three lectures. Prerequisites, M. E. 102 y and Mech. 1 y. Required of seniors in Mechanical Engineering.

Design of Otto and Diesel cycle engines, liquid and gaseous fuels, combustion. Detonation, carburetion, and performance. (Nesbit.)

M. E. 104 f. *Heat Power Engineering* (2)—Two lectures. Prerequisite, Mech. 102 y. Required of seniors in Mechanical Engineering.

This course deals with the operation of power plants and the design of steam engines, turbines, boilers, condensers, and feed water heaters. (Nesbit.)

M. E. 105 f. *Heating and Ventilation* (2)—Two lectures. Prerequisite, Mech. 1 y. Required of seniors in Mechanical Engineering.

Problems involving the methods in use in various systems, as to size and capacity necessary for any required installation. (Nesbit.)

M. E. 106 s. *Design of Pumping Machinery* (2)—One lecture, one laboratory. Prerequisites, M. E. 102 y and Mech. 1 y. Required of seniors in Mechanical Engineering.

Design of double acting steam pumps, centrifugal pumps, vacuum pumps, and water works pumps. (Nesbit.)

M. E. 107 y. *Design of Prime Movers* (6)—Two lectures; one laboratory. Prerequisites, M. E. 102 y, M. E. 104 f, Mech. 1 y.

Required of seniors in Mechanical Engineering. The design and proportioning of parts of essential prime movers for power plants. (Nesbit.)

M. E. 108 s. *Design of Power Plants* (2)—One lecture; one laboratory. Prerequisites, M. E. 104 f, M. E. 105 f, M. E. 107 y. Required of seniors in Mechanical Engineering.

The design of complete power plants, including the layout and cost of building, installation of equipment, and determination of size for best financial efficiency. (Nesbit.)

M. E. 109 y. *Mechanical Laboratory* (2)—One laboratory. Prerequisites, Engr. 1 y and Mech. 1 y. Required of seniors in Mechanical Engineering.

Calibration of instruments, gauges, indicator springs, planimeters, steam, gas, and water meters.

Indicated and brake horsepower of steam and internal combustion engines, setting of plain valves, Corliss valves. Tests for economy and capacity of boilers, engines, turbines. Pumps and other prime movers. Feed water heaters, condensers; B. T. U. analysis of solid, gaseous, and liquid fuels and other complete power plant tests. (Nesbit and Bailey.)

### Shop

SHOP 1 f. *Forge Practice* (1)—One combination lecture and laboratory. Required of all freshmen in Engineering.

Lectures on the principles of forging and heat treatment of steel. Demonstrations in acetylene and electric welding, brazing, cutting, and case hardening. Laboratory practice in drawing, bending, upsetting, welding, hardening, tempering, and thread cutting.

**Shop** 2 s. *Pattern Shop* (1)—One combination lecture and laboratory. Required of all freshmen in Engineering.

Lectures on pattern and core box design, demonstrations in plain and match plate molding, and casting in aluminum. The use and care of wood working tools and machines, exercises in sawing, planing, turning, and laying out work from blueprints.

**Shop** 3 f. *Machine Shop Practice* (1)—One laboratory. Required of sophomores in Mechanical and Electrical Engineering.

Exercises in bench work, turning, planing, drilling, and pipe threading.

**Shop** 4 s. *Machine Shop Practice* (2)—One lecture; one laboratory. Prerequisite, Shop 3 f. Required of sophomores in Mechanical and Electrical Engineering.

Advanced practice with standard shop machines. Exercises in thread cutting, surface grinding, fluting, and cutting of spur and twisted gears. Calculations of machine shop problems involving lathe and milling machines. Problems relating to methods of manufacture of machine parts by use of jigs and time-saving devices.

**Shop** 5 s. *Foundry Practice* (1)—One combination lecture and laboratory. Prerequisite, Shop 2 s. Required of juniors in Mechanical Engineering.

Eight weeks of lecture and recitation work on foundry products, foundry layout, foundry materials and equipment, hand and machine molding, cupola practice, and calculating mixes. Remaining time devoted to core making and to molding and casting in aluminum, brass, and gray iron.

### Surveying

**Surv.** 1 f. *Plane Surveying* (1)—Lecture and laboratory work. Prerequisites, Math. 3 f and 4 s. Required of sophomores in Mechanical and Electrical Engineering.

Theory of and practice in the use of the tape, compass, transit, and level. General surveying methods, map reading, traversing, theory of stadia.

**Surv.** 2 y. *Plane Surveying* (4)—One lecture; one laboratory. Prerequisites, Math. 3 f and 4 s. Required of sophomores in Civil Engineering.

Land surveying and map making for topography and planning. Practice in stadia. Computations of coordinates. Plotting of control and detail. Establishment of line and grade for construction purposes. Laying out simple curves. Estimation of earthwork.

**Surv.** 101 f. *Advanced Surveying* (3)—One lecture; two laboratories. Prerequisite, Surv. 2 y. Required of juniors in Civil Engineering.

Adjustment of instruments. Determination of azimuth by stellar and solar observations. Triangulation, precise leveling, trigonometric leveling and geodetic surveying, together with the computations and adjustments necessary. (Pyle.)

## ENGLISH LANGUAGE AND LITERATURE

Professor House; Associate Professors Harman, Hale;
Assistant Professor Lemon; Mr. Fitzhugh, Mr. Murphy,
Mr. Cooley, Miss McMinimy, Mrs. Coe.

**Eng.** 1 y. *Composition and Rhetoric* (6)—Three lectures. Freshman year. Prerequisite, three units of high school English. Required of all four-year students.

Study of the principles of style, syntax, spelling, punctuation. Detailed examination of standard essays, one drama, and one novel. Written themes and book reviews, exercises in grammatical analysis and in paragraph writing.

**Eng.** 2 y. *Elements of Literature* (6)—Three lectures. Prerequisite, three units of high school English.

Examination of the principles of literary form. Study and interpretation of selected classics.

**Eng.** 3 f. *Advanced Composition and Rhetoric* (2)—Two lectures. Prerequisite, Eng. 1 y. Eng. 3 f and 4 s are required courses for all students whose major is English. Students who have credit for Eng. 5 f and 6 s are not eligible for this course.

Study and analysis of the best modern essays as a basis of class papers. Also original themes on assigned topics.

**Eng.** 4 s. *Advanced Composition and Rhetoric* (2)—Two lectures. Prerequisite, Eng. 3 f.

Continuation of Eng. 3 f.

**Eng.** 5 f. *Expository Writing* (2)—Two lectures. Prerequisite, Eng. 1 y. Students who have credit for Eng. 3 f and 4 s are not eligible for this course.

Study of the principles of exposition. Analysis and interpretation of material bearing upon scientific matter. Themes, papers, and reports.

**Eng.** 6 s. *Expository Writing* (2)—Two lectures. Prerequisite, Eng. 5 f.

Continuation of Eng. 5 f.

**Eng.** 7 f. *History of English Literature* (3)—Three lectures. Prerequisite, Eng. 1 y. Required of all students whose major is English.

A general survey, with extensive reading and class papers.

**Eng.** 8 s. *History of English Literature* (3)—Three lectures. Prerequisite, Eng. 7 f or consent of instructor.

Continuation of Eng. 7 f.

**Eng.** 9 f. *American Literature* (3)—Three lectures. Prerequisite, Eng. 1 y.

Lectures on the development of American literary types. Class papers.

Eng. 10 s. *American Literature* (3)—Three lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 9 f.

Eng. 11 f. *Modern Poets* (3)—Three lectures. Prerequisite, Eng. 1 y.

English and American poets of the latter part of the Nineteenth and of the Twentieth Century.

Eng. 12 s. *Modern Poets* (3)—Three lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 11 f.

Eng. 13 f. *The Drama* (3)—Three lectures. Prerequisite, Eng. 1 y.

A study of representative plays in the development of English and American drama. Reports and term themes. (Not given in 1935-1936.)

Eng. 14 s. *The Drama* (3)—Three lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 13 f. (Not given in 1935-1936.)

Eng. 15 f. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1 y.

An intensive study of selected plays.

Eng. 16 s. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 15 f.

Eng. 17 f. *Business English* (2)—Two lectures. Prerequisite, Eng. 1 y.

This course develops the best methods of effective expression, both oral and written, used in business activities.

Eng. 18 s. *Business English* (2)—Two lectures. Prerequisite, Eng. 17 f.

Continuation of Eng. 17 f.

Eng. 19 s. *Introduction to Narrative Literature* (2)—Two lectures. Open only to freshmen and sophomores.

Great stories of the world, in prose and verse.

### For Advanced Undergraduates and Graduates

*Eng. 105 s. *Poetry of the Romantic Age* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s, or Comp. Lit. 105, first semester.

A study of the development of the Romantic movement in England as illustrated in the works of Wordsworth, Coleridge, Byron, Shelley, and Keats. (Hale.)

Eng. 113 f. *Scottish Poetry* (2)—Two lectures. Prerequisites, Eng. 7 f and 8 s. No knowledge of the Scottish dialect required.

Readings in The Scottish Chaucerians: Drummond of Hawthornden; song and ballad literature; poets of the vernacular revival: Ramsay, Fergusson, and Burns. Papers and reports. (Fitzhugh.)

Eng. 114 s. *Elizabethan Literature* (2)—Two lectures. Prerequisites, Eng. 7 f and 8 s.

A study of significant dramatic and non-dramatic writers other than Shakespeare. Papers and reports. (Fitzhugh.)

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*May be counted as Comparative Literature.

Eng. 115 f. *Literature of the Eighteenth Century* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Readings in the period dominated by Defoe, Swift, Addison, Steele, and Pope. Papers and reports. (Not given in 1935-1936.) (Fitzhugh.)

Eng. 116 s. *Literature of the Eighteenth Century* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

A continuation of Eng. 115 f. The development of the novel; the change of the spirit of poetry; Dr. Johnson and his Circle; the Letter Writers. Papers and reports. (Not given in 1935-1936.) (Fitzhugh.)

Eng. 117 f. *Literature of the Seventeenth Century* (2)—Two lectures. Prerequisites, Eng. 7 f and 8 s.

A study of Donne, Jonson, and their followers; Milton. (Murphy.)

Eng. 118 s. *Literature of the Seventeenth Century* (2)—Two lectures. Prerequisites, Eng. 7 f and 8 s.

A continuation of Eng. 117 f. A study of the development of neoclassicism with special emphasis on Dryden and satire. (Murphy.)

*Eng. 119 y. *Anglo-Saxon* (6)—Three lectures. Some knowledge of Latin and German is desirable, as a preparation for this course. Required of all students whose major is English.

A study of Anglo-Saxon (Old English) grammar and literature. Lectures on the principles of comparative philology and phonetics. (House.)

Eng. 122 f. *The Novel* (2)—Two lectures. Prerequisite, Eng. 1 y.

Lectures on the principles of narrative structure and style. Class reviews of selected novels, chiefly from English and American sources. (House.)

Eng. 123 s. *The Novel* (2)—Two lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 122 f. (House.)

Eng. 124 f. *English and American Essays* (2)—Two lectures. Prerequisite, Eng. 1 y.

A study of the philosophical, critical, and familiar essays of England and America. Bacon, Lamb, Macaulay, Emerson, Chesterton, and others. (House.)

Eng. 126 f. *Victorian Poets* (2)—Two lectures. Prerequisite, Eng. 1 y.

Studies in the poetry of Tennyson, Browning, Arnold, Swinburne, and others. (House.)

Eng. 127 s. *Victorian Poets* (2)—Two lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 126 f. (House.)

Eng. 129 f. *College Grammar* (3)—Three lectures. Prerequisite, Eng. 1 y. Required of all students whose major is English, and strongly recommended for all whose minor is English.

Studies in the descriptive grammar of modern English, with some account of the history of forms. (Harman.)

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* May be counted as Comparative Literature.

*ENG. 130 f. *The Old Testament as Literature* (2)—Two lectures. For seniors and graduate students.

A study of the sources, development, and literary types. (Hale.)

### For Graduates

ENG. 201. *Research.* Credit proportioned to the amount of work and ends accomplished.

Original research and the preparation of dissertations looking towards advanced degrees. (Staff.)

ENG. 202 y. *Beowulf* (4)—Two lectures. Prerequisite, Eng. 119 y.

Critical study of grammar and versification, with some account of the legendary lore. (Not given in 1935-1936.) (Harman.)

ENG. 203 f. *Middle English* (2)—Two lectures. Prerequisite, Eng. 119 y.

A study of readings of the Middle English period, with reference to etymology and syntax. (House.)

*ENG. 204 s. *Gothic* (2)—Two lectures. Prerequisite, Eng. 119 y.

A study of the forms and syntax, with readings from the Ulfilas Bible. Correlation of Gothic speech sounds with those of Old English. (House.)

ENG. 205 s. *Browning's Dramas* (2)—Two lectures.

*Luria, The Return of the Druses, Pippa Passes, Colombe's Birthday, A Blot in the 'Scutcheon,* and others. (House.)

ENG. 206 f. *Victorian Prose* (2)—Two lectures.

Works of Carlyle, Arnold, Mill, Ruskin, and others. (Hale.)

ENG. 207 y. *Medieval Romance in England* (4)—Two lectures. Prerequisite, Eng. 7 f.

Lectures and readings in the cyclical and non-cyclical romances in Medieval England and their sources, including translations from the Old French. (Not given in 1935-1936.) (Hale.)

ENG. 208 y. *The Major Poets of the Fourteenth Century* (4)—Two lectures. Prerequisite, Eng. 7 f.

Lectures and assigned readings in the works of Langland, Gower, Chaucer, and other poets of the fourteenth century. (Hale.)

## ENTOMOLOGY

PROFESSOR CORY; ASSISTANT PROFESSOR KNIGHT;
LECTURER SNODGRASS; MR. ABRAMS,
DR. DITMAN, MR. WHITE.

ENT. 1 f or s. *Introductory Entomology* (3)—Two lectures; one laboratory. Prerequisite, Zool. 1 f or s.

The relations of insects to the daily life and activities of the student. General principles of structural and systematic entomology. Field work and the preparation of a collection of insects.

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* **May be counted as Comparative Literature.**

ENT. 2 y. *Insect Morphology and Taxonomy* (6)—A two-semester course. Two laboratories. Credit not given for second semester alone. Prerequisite, Ent. 1 f or s.

Studies of the anatomy, physiology, and taxonomy of insects. A fundamental course given in preparation for most of the advanced courses. Lectures given at opportune times during laboratory periods.

ENT. 3 s. *Insect Biology* (3)—Two lectures; one laboratory. Prerequisite, Ent. 1 f or s.

A continuation of general entomological problems begun in the first course, with particular emphasis on the adaptations, ecology, interrelations, and behavior of insects.

ENT. 4 f or s. *Special Problems*—Prerequisite—consult department.

The intensive investigation of some entomological subject. A report of the results is submitted as part of the requirement for graduation.

ENT. 5 s. *Insecticides and Their Application* (1)—One laboratory. Prerequisite, Ent. 1 f or s.

The principles of insecticides, their chemistry, preparation, and application; construction, care, and use of spray and dusting machinery; fumigation; methods and apparatus in mechanical control. (Not offered in 1935-1936.)

ENT. 6 f. *Apiculture* (3)—Two lectures; one laboratory. Prerequisites, Zool. 1 f or s, and Ent. 1 f or s.

A study of the life history, yearly cycle, behavior, and activities of the honeybee. The value of honeybees as pollenizers of economic plants and as producers of honey and wax. Designed to be of value to the student of agriculture, horticulture, entomology, and zoology.

ENT. 7 s. *Apiculture* (3)—Two lectures; one laboratory. Prerequisite, Ent. 6 f.

Theory and practice of apiary management. Designed for the student who wishes to keep bees or desires a knowledge of practical apiary management.

ENT. 8 y. *Entomological Technic and Scientific Delineation* (4). Prerequisite, Ent. 1 f or s.

Collecting, rearing, preserving, and mounting of insects. The preparation of exhibits, materials for instruction, entomological records. Methods of illustrating, including drawing, photography, lantern slide making, and projection. Useful for prospective teachers of biology as well as for the entomological student.

### For Advanced Undergraduates and Graduates

ENT. 101 y. *Economic Entomology* (4)—Two lectures.

An intensive study of the problems of applied entomology, including life history, ecology, behavior, distribution, parasitism, and control. (Not offered in 1935-1936.) (Cory.)

ENT. 102 y. *Economic Entomology* (4)—Two laboratories.

Expansion of Ent. 101 y to include laboratory and field work in economic entomology. (Not offered in 1935-1936.) (Cory.)

ENT. 103 y. *Seminar* (2).

Presentation of original work, book reviews, and abstracts of the more important literature. (Cory, Knight.)

ENT. 104 y. *Insect Pests of Special Groups* (6). Prerequisite, Ent. **1 f or s.**

A study of the principal insects of one or more of the following groups, founded upon food preferences and habitat. The course is intended to give the general student a comprehensive view of the insects that are of importance in his major field of interest and detailed information to the student specializing in entomology.

Insect Pests of 1. Fruit. 2. Vegetables. 3. Flowers, both in the open and under glass. 4. Ornamentals and Shade Trees. 5. Forests. 6. Field Crops. 7. Stored Products. 8. Live Stock. 9. The Household. (Cory.)

ENT. 105 f. *Medical Entomology* (2)—Two lectures. Prerequisite, Ent. 1 f or s, and consent of instructor.

The relation of insects to diseases of man, directly and as carriers of pathogenic organisms. Control of pests of man. The fundamentals of parasitology. (Knight.)

ENT. 106 f or s. *Insect Taxonomy* (3)—Two lectures; one laboratory.

An advanced course dealing with the principles and practices underlying modern systematic entomology.

*Note:* Course 106 runs from November 15 to March 15 to accommodate field workers.

ENT. 107 s. *Theory of Insecticides* (2)—Two lectures.

The development and use of contact and stomach poisons, with regard to their chemistry, toxic action, compatability, and foliage injury. Recent work with insecticides will be especially emphasized. (Ditman.)

### For Graduates

ENT. 201 y. *Advanced Entomology* (1-3)—One lecture; one laboratory by arrangement.

Studies of minor problems in morphology, taxonomy, and applied entomology, with particular reference to preparation for individual research. (Cory.)

ENT. 202 y. *Research in Entomology* (6-10).

Advanced students having sufficient preparation, with the approval of the head of the department, may undertake supervised research in morphology, taxonomy, or biology and control of insects. Frequently the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and be published in bulletin form. A dissertation suitable for publication must be submitted at the close of the studies as a part of the requirements for an advanced degree. (Cory.)

ENT. 203. *Insect Morphology* (2-4)—Two lectures, and laboratory work by special arrangement, to suit individual needs.

Insect anatomy with special relation to function. Given particularly in preparation for work in physiology and other advanced studies. (Snodgrass.)

*Note:* Course 203 begins November 15 and closes March 15, and is taught at 4:30 P. M. in order to accommodate field workers.

ENT. 204 y. *Economic Entomology* (6)—Three lectures. Studies of the principles underlying applied entomology, and the most significant advances in all phases of entomology. (Cory.)

## FARM FORESTRY

PROFESSOR BESLEY.

FOR. 1 s. *Farm Forestry* (3)—Two lectures; one laboratory. Alternate year course. Junior and senior years. Prerequisite, Bot. 101 f.

A study of the principles and practices involved in managing woodlands on the farm. The course covers briefly the identification of trees; forest protection; management, measurement, and utilization of forest crops; nursery practice; and tree planting. The work is conducted by means of lectures and practice in the woods.

## FARM MANAGEMENT

PROFESSOR W. T. L. TALIAFERRO.

F. M. 1 s. *Farm Accounting* (3)—Two lectures; one laboratory. Open to juniors and seniors.

A concise practical course in the keeping of farm accounts and in determining the cost of farm production.

F. M. 2 f. *Farm Management* (4)—Four lectures.

The business of farming from the standpoint of the individual farmer. This course aims to connect the principles and practice which the student has acquired in the several technical courses and to apply them to the development of a successful farm business.

*See also* Agricultural Economics, page 176.

## FARM MECHANICS

PROFESSOR CARPENTER.

F. MECH. 101 f. *Farm Machinery* (3)—Two lectures; one laboratory.

A study of the design and adjustments of modern horse- and tractor-drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustment, and repair.

F. MECH. 102 s. *Gas Engines, Tractors, and Automobiles* (3)—Two lectures; one laboratory.

A study of the design, operation, and repair of the various types of internal combustion engines used in farm practice.

F. MECH. 104 f. *Farm Shop Work* (1)—One laboratory.

A study of practical farm shop exercises, offered primarily for prospective teachers of vocational agriculture.

F. MECH. 105 f. *Farm Buildings* (2)—Two lectures.

A study of all types of farm structures; also of farm heating, lighting, water supply, and sanitation systems.

F. MECH. 107 s. *Farm Drainage* (2)—One lecture; one laboratory.

A study of farm drainage systems, including theory of tile under-drainage, the depth and spacing of laterals, calculation of grades, and methods of construction. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto.

## GENETICS AND STATISTICS

### PROFESSOR KEMP.

GEN. 101 f. *Genetics* (3)—Three lectures.

A general course designed to give an insight into the principles of genetics, or of heredity, and also to prepare students for later courses in the breeding of animals or of crops.

GEN. 102 s. *Advanced Genetics* (2)—Two lectures. Prerequisite, Gen. 101 f. Alternate year course.

A consideration of chromosome irregularities and other mutations, interspecies crosses, identity of the gene, genetic equilibrium, and the results of attempts to modify germplasm.

GEN. 111 f. *Statistics* (2)—Two lectures.

A study of the collection, analysis, interpretation, and presentation of statistics. The course includes a study of expressions of type, variability, and correlation, together with the making of diagrams, graphs, charts, and maps.

GEN. 112 s. *Advanced Statistics* (2)—Two lectures. Prerequisite, Gen. 111 f or its equivalent.

A study of the theory of error, measures of relationship, multiple and partial correlation, predictive formulas, curve fitting.

GEN. 114 s. *Elements of Statistics* (3)—Three lectures. Required of students in Business Administration.

A study of the fundamental principles used in statistical investigation.

GEN. 201 y. *Plant Breeding*—Credit according to work done.

GEN. 209 y. *Research*—Credit according to work done.

## GEOLOGY

### PROFESSOR BRUCE.

GEOL. 1 f. *Geology* (3)—Two lectures; one laboratory.

A textbook, lecture, and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agriculture students in preparation for technical courses, it may also be taken as part of a liberal education.

## GREEK

### PROFESSOR SPENCE.

GREEK 1 y. *Elementary Greek* (6)—Three lectures.

Drill and practice in the fundamentals of Greek grammar and the acquisition of a vocabulary, with translation of simple prose.

GREEK 2 y. *Greek Grammar, Composition, and Translation of Selected Prose Work* (8)—Four lectures. Prerequisite, Greek 1 y or two entrance units in Greek.

## HISTORY AND POLITICAL SCIENCE

PROFESSORS CROTHERS, SPENCE;
ASSISTANT PROFESSOR JAEGER;
MR. STEINMEYER, MR. SILVER, MR. MURPHY, MR. ALLEN.

### A. History

H. 1 y. *Modern European History* (6)—Three lectures and assignments.

The object of the course is to acquaint students with the chief events in European History during the modern period. The lectures are so arranged as to present a comparative and constructive view of the most important events during the period covered.

H. 2 y. *American History* (6)—Three lectures and assignments. Open to sophomores.

An introductory course in American History from the discovery of the New World to the present time.

H. 3 y. *History of England and Greater Britain* (6)—Three lectures and assignments. Open to freshmen.

A survey course of English History.

H. 4 s. *History of Maryland* (2)—Two lectures. Not open to juniors and seniors.

A study of the colony of Maryland and its development into statehood.

H. 5 f. *Greek Civilization* (2)—Two lectures.

The emphasis is on the life, art, and thought of the classical period.

H. 6 s. *Roman Civilization* (2)—Two lectures.

The emphasis is on the institutions and traditions that have influenced later Europe.

### For Advanced Undergraduates and Graduates

H. 101 f. *American Colonial History* (3)—Three lectures and assignments. Prerequisite, H. 2 y.

A study of the political, economic, and social development of the American people from the discovery of America through the formation of the Constitution. (Crothers.)

H. 102 s. *Recent American History* (3)—Three lectures. Prerequisite, H. 2 y.

The history of national development from the close of the reconstruction period to the present time. (Crothers.)

H. 103 y. *American History* 1790-1865 (4)—Two lectures. Prerequisite, H. 2 y.

The history of national development to the reconstruction period. (Crothers.)

H. 104 y. *World History Since* 1914 (6)—Three lectures.

A study of the principal nations of the world since the outbreak of the World War. (Silver.)

H. 105 y. *Diplomatic History of Europe in the Nineteenth and Twentieth Centuries* (6)—Three lectures. Prerequisite, H 1 y or equivalent.

A study of the European nations, stressing their political problems and their political activities. (Not given in 1935-1936.) (Silver.)

H. 106 y. *American Diplomacy* (4)—Two lectures.

A study of American foreign policy. (Not given in 1935-1936.) (Crothers.)

H. 107 f. *Social and Economic History of the United States* (2)—Two lectures.

An advanced course giving a synthesis of American life from 1607 to 1828. (Crothers.)

H. 108 s. *Social and Economic History of the United States* (2)—Two lectures.

This course is similar to H. 107 f, and covers the period from 1828 to the present time. (Crothers.)

H. 109 f and s. *Expansion of Europe* (3)—Three lectures. Prerequisite, H. 1 y or equivalent.

A study of the expansion of western civilization through the growth of European national states. (Silver.)

### For Graduates

H. 201 y. *Seminar in American History* (4). (Crothers.)

### B. Political Science

Pol. Sci. 1 y. *Elements of Political Science* (6)—Three lectures. An introduction to Political Science.

Pol. Sci. 2 f. *Government of the United States* (3)—Three lectures. Open to sophomores.

A study of the Government of the United States. Evolution of the Federal Constitution; function of the Federal Government.

Pol. Sci. 3 s. *Comparative Government* (3)—Three lectures. Prerequisite, Pol. Sci, 2 f.

A study of European governments in comparison with that of the United States.

Pol. Sci. 4 s. *State Government* (2).

A study of state government with special emphasis on Maryland.

### For Advanced Undergraduates and Graduates

Pol. Sci. 101 f. *International Law* (3)—Three lectures and recitations. Case method.

A study of the sources, nature, and development of international law as found in the decisions of courts and tribunals, both municipal and international. (Jaeger.)

Pol. Sci. 102 s. *International Relations* (3)—Three lectures and conferences.

An examination of the economic and political reasons that motivate nations in their relations with one another. This course is designed to give the student a clear insight into the *actual causes*, whether economic or otherwise, that induce States to adopt one policy or another in the international sphere of their activity. Steinmeyer.

Pol. Sci. 103 f. *Municipal Government* (3)—Three lectures and recitations.

A study of municipal organization.

Pol. Sci. 104 s. *Current Problems in Government* (3)—Two lectures and recitations.

A study of present day problems of legislation.

## HOME ECONOMICS

Professors Mount, McFarland; Associate Professor Welsh;
Assistant Professor Murphy; Mrs. Westney,
Miss Hartmann.

### Textiles and Clothing

H. E. 11 f. *Textiles and Clothing* (3)—Two recitations; one laboratory.

History of textile fibers; budgeting; care of clothing; construction of one garment of wool and one of silk. (Westney.)

H. E. 12 s. *Textiles and Clothing* (3)—One recitation; two laboratories.

Standardization and identification of textile fibers and materials. Construction of tailored suit; application of construction methods used by the trade. (Westney.)

### For Advanced Undergraduates

H. E. 111 f. *Advanced Clothing* (3)—Three laboratories. Prerequisites, H. E. 11 f and H. E. 12 s or equivalent.

The principles governing modeling and draping of garments; specific applications in paper and materials. (Westney.)

H. E. 112 s. *Special Clothing Problems* (3)—One recitation; two laboratories. Prerequisite, H. E. 111 f.

Each student selects and develops three individual clothing problems. (Westney.)

H. E. 113 f. *Problems and Practice in Textiles, Clothing, or Related Art* (5).

Investigations pertaining to subjects in textiles, clothing, or related art. (McFarland.)

H. E. 114 f or s. *Advanced Textiles* (3)—Two recitations; one laboratory.

Advanced study of textiles; historic textiles; economic phases of the textile industry which affect the consumer; eight trips to museums and stores. (Westney.)

## FOODS AND NUTRITION

H. E. 31 y. *Foods* (6)—One recitation; two laboratories. Prerequisite, Chem. 1 y.

Principles of food preparation; composition of foods; planning and serving of meals. (Welsh and Assistants.)

### For Advanced Undergraduates

*H. E. 131 f or s. *Nutrition* (3)—Three recitations. Prerequisites, H. E. 31 y and Chem. 12 f.

Nutritive value, digestion and assimilation of foods. (Welsh.)

H. E. 132 s. *Nutrition* (3)—Three recitations. Prerequisite, H. E. 131 f. Selection of food to promote health; diet in disease. (Welsh.)

H. E. 133 f. *Demonstrations* (2)—Two laboratories. Practice in demonstrations. (Welsh.)

H. E. 134 s. *Advanced Foods* (3)—One recitation; two laboratories. Prerequisite, H. E. 31 y.

Advanced study of manipulation of food materials. (Welsh.)

H. E. 135 f. *Problems and Practice in Foods* (5). Experimental foods. (Welsh.)

H. E. 136 s. *Child Nutrition* (2)—Two recitations.

Lectures, discussions, and field trips relating to the principles of child nutrition.

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* H. E. 131 f is repeated in the second semester as H. E. 131 s, for Pre-Nursing students.

### For Graduates

H. E. 201 f or s. *Seminar in Nutrition* (3).

Oral and written reports on assigned readings in the current literature of Nutrition. Preparation and presentation of reports on special topics.

H. E. 202 f or s. *Research.* Credit to be determined by amount and quality of work done.

With the approval of the head of the department, the student may pursue an original investigation in some phase of foods. The result may form the basis of a thesis for an advanced degree.

H. E. 203 f or s. *Advanced Experimental Foods* (3)—One recitation; two laboratories. Experimental work with foods.

## ART

H. E. 21 s. *Design* (3)—One recitation; two laboratories.

Elements of design; application of design principles to daily living; practice in designing. (McFarland.)

H. E. 22 s. *Still Life* (1)—One laboratory. Prerequisite, H. E. 21 f.

Work in charcoal and color. (McFarland.)

H. E. 23 s. *Figure Sketching* (1)—One laboratory. Alternates with Still Life (H. E. 22 s.) (McFarland.)

H. E. 24 f. *Costume Design* (3)—One recitation; two laboratories. Prerequisite, H. E. 21 f.

A study of fundamentals underlying taste, fashion, and design as they relate to the expression of individuality in dress. (McFarland.)

### For Advanced Undergraduates

H. E. 121 s. *Interior Decoration* (3)—Two recitations; one laboratory. Prerequisite, H. E. 21 f.

History of architecture and period furniture; application of principles of color and design to home decoration. (Murphy.)

H. E. 122 s. *Applied Art* (1)—One laboratory.

Application of the principles of design and color to practical problems. (Murphy.)

H. E. 123 s. *Advanced Design* (3)—Three laboratories. Prerequisites, H. E. 24 s and 21 f.

Advanced study in design, with application to particular problems. (McFarland.)

H. E. 124 f. *History of Art* (3)—Three recitations.

An introduction to the history of art, with emphasis upon the development of sculpture, painting, and architecture, from the earliest ages to the present.

(McFarland.)

H. E. 125 s. *History of Art* (3)—Three recitations. Continuation of 124 f.

(McFarland.)

### Home and Institution Management

H. E. 141 f. *Management of the Home* (3)—Three recitations.

History of the family and of the home; the house, its structure and furnishings; purchasing of all household commodities.

H. E. 142 s. *Management of the Home* (3)—Three recitations.

Management of the home and family; relation of the members of the family to each other and to the community.

H. E. 143 f. *Practice in Management of the Home* (5).

Experience in operating and managing a household composed of a member of the faculty and a small group of students for approximately one-third of a semester.

(Murphy.)

H. E. 144 y. *Institution Management* (6)—Three recitations.

The organization and management of institution dining halls, dormitories, and laundries; and of commercial cafeterias, tea-rooms, and restaurants.

(Hartmann.)

H. E. 145 f. *Practice in Institution Management* (5)—Prerequisite, H. E. 144 y.

Practice work in the University dining hall, in a tea room, or in a cafeteria.

(Hartmann.)

H. E. 146 s. *Advanced Institution Management* (3)—Prerequisite, H. E. 144 y. One recitation weekly and individual conferences with the instructors.

Special problems in institution management. (Mount and Hartmann.)

### Home Economics Extension

H. E. 151 f. *Field Practice in Home Economics Extension* (5)—Given under the direction of Miss Venia Kellar, State Home Demonstration Agent.

### Home Economics Seminar

H. E. 161 s. *Seminar* (3)—Three recitations.

Book reviews, and abstracts from scientific papers and bulletins relating to home economics, together with criticisms and discussions of the work presented.

(Staff.)

## HORTICULTURE

PROFESSORS BEAUMONT, SCHRADER, THURSTON; LECTURERS AUCHTER, BOSWELL; ASSOCIATE PROFESSOR WENTWORTH; ASSISTANT PROFESSOR CORDNER; DR. FRAZIER, MR. BAILEY.

### A. Pomology

HORT. 1 f. *Elementary Pomology* (3)—Three lectures.

A general course in pomology. The proper location and site for an orchard; varieties, planting plans, pollination requirements, inter-crops, spraying, cultural methods, fertilizing methods, thinning, picking, spray residue removal, packing, and marketing are given consideration. These subjects are discussed for apples, peaches, pears, plums, cherries, and quinces. The principles of plant propagation as applied to pomology are also discussed.

HORT. 4 s. *Small Fruit Culture* (2)—Two lectures. Given in alternate years.

The care and management of small fruit plantations. Varieties and their adaptation to Maryland soils and climate, packing, marketing, and a study of the experimental plots and varieties on the Station grounds. The following fruits are discussed: the grape, strawberry, blackberry, blackcap raspberry, red raspberry, currant, gooseberry, dewberry, loganberry, and blueberry. (Not offered in 1935-1936.)

HORT. 5 f. *Fruit Judging* (2)—Two laboratories.

A course designed to train students for fruit-judging teams and practical judging. Students are required to know at least one hundred varieties of fruit, and are given practice in judging single plates, largest and best collections, boxes, barrels, and commercial exhibits of fruits. Students are required to help set up the college horticultural show each year.

HORT. 6 f. *Advanced Fruit Judging* (1)—One laboratory.

HORT. 7 f. *Practical Pomology Laboratory* (2)—Two laboratories. Prerequisite, Hort. 1 f or taken in conjunction with Hort. 1 f. Seasonal practical experience in carrying out orchard and small fruit operations, including spraying, harvesting, spray residue removal, grading, packing, mouse and borer control, pruning, budding, grafting, planting, pollination, etc.

The course will include trips to the principal horticultural regions of Maryland and of neighboring states, and to nurseries or other points of interest.

HORT. 8 s. *Practical Pomology Laboratory* (2)—Two laboratories. Prerequisite. Hort. 1 f.

A continuation of Hort. 7 f as above outlined.

## B. Vegetable Crops

**Hort.** 11 s. *Principles of Vegetable Culture* (3)—Two lectures; one laboratory.

A study of fundamental principles underlying all garden practices. Each student is given a small garden to plant, cultivate, spray, fertilize, harvest, etc.

**Hort.** 12 f. *Truck Crop Production* (3)—Three lectures. Prerequisite, Hort. 11 s.

A study of methods used in commercial vegetable production. Each crop is discussed in detail. Trips are made to large commercial gardens, various markets, and other places of interest.

**Hort.** 13 s. *Vegetable Forcing* (3)—Two lectures; one laboratory. Prerequisite, Hort. 11 s.

All vegetables used for forcing are considered. Laboratory work in sterilization and preparation of soils, cultivation, regulation of temperature and humidity, watering, training, pruning, pollination, harvesting, and packing. Given in alternate years. (Not offered in 1935-1936.)

## C. Floriculture

**Hort.** 21 f. *General Floriculture* (2)—One lecture; one laboratory.

The management of greenhouses; the production and marketing of florists' crops; retail methods; plants for house and garden. Given in alternate years. (Not offered in 1936-1937.)

**Hort.** 22 y. *Greenhouse Management* (6)—Two lectures; one laboratory.

A consideration of the methods employed in the management of greenhouses, including the operations of potting, watering, ventilating, fumigation, and methods of propagation. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 23 y. *Floricultural Practice* (4)—Two laboratories.

Practical experience in the various greenhouse operations of the fall, winter, and spring seasons.

**Hort.** 24 s. *Greenhouse Construction* (2)—One lecture; one laboratory.

The various types of houses; their location, arrangement, construction, and cost; principles and methods of heating; preparation of plans and specifications for commercial and private ranges. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 25 y. *Commercial Floriculture* (6)—Two lectures; one laboratory. Prerequisite, Hort. 22 y.

Cultural methods of florists' bench crops and potted plants, the marketing of the cut flowers, the retail store, a study of floral decoration. Given in alternate years. (Not offered in 1936-1937.)

**Hort.** 26 f. *Garden Flowers* (3)—Two lectures; one laboratory.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants and roses and their cultural requirements. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 27 s. *Floricultural Trip* (1)—Prerequisite, Hort. 22 y.

A trip occupying one week's time will be made through the principal floricultural sections, including Philadelphia and New York, visiting greenhouse establishments, wholesale markets, retail stores, nurseries, etc. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

## D. Landscape Gardening

**Hort.** 31 s. *General Landscape Gardening* (2)—Two lectures.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the home grounds, farmsteads, and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject. Given in alternate years. (Not offered in 1936-1937.)

**Hort.** 32 f. *Elements of Landscape Design* (3)—One lecture; two laboratories. Prerequisite, Hort. 31 s.

A consideration of the principles of landscape design; surveys, mapping, and field work. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 33 s. *Landscape Design* (3)—Three laboratories. Prerequisite, Hort. 32 f.

The design of private grounds and gardens and of architectural details used in landscape; planting plans; analytical study of plans of practicing landscape architects; field observation of landscape developments. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 34 f. *Landscape Design* (3)—Three laboratories. Prerequisite, Hort. 33 s.

Continuation of course as outlined above. Given in alternate years. (Not offered in 1936-1937.)

**Hort.** 35 f. *History of Landscape Gardening* (1)—One lecture. Prerequisite, Hort. 31 s.

Evolution and development of landscape gardening; the different styles and a particular consideration of Italian, English, and American gardens. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 36 s. *Landscape Construction and Maintenance* (1)—One lecture or laboratory.

Methods of construction and planting; estimating; park and estate maintenance. Given in alternate years. (Not offered in 1935-1936.)

**Hort.** 37 s. *Civic Art* (2)—One lecture; one laboratory.

Principles of city planning and their application to village and rural improvement, including problems in design of civic center, parks, school grounds, and other public and semi-public areas. Given in alternate years. (Not offered in 1936-1937.)

### E. General Horticulture Courses

**Hort.** 42 y. *Horticultural Research and Thesis* (4-6).

An advanced student in any of the four divisions of horticulture may select a special problem for investigation. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, the student should in most cases start the work during the junior year. The results of the research are to be presented in the form of a thesis and filed in the horticultural library.

**Hort.** 43 y. *Horticultural Seminar* (2).

In this course papers are read by members of the class upon subjects pertaining to their research or thesis work or upon special problems assigned them. Discussions of special topics are given from time to time by members of the departmental staff.

### For Advanced Undergraduates and Graduates

**Hort.** 101 f. *Commercial Fruit Growing* (3)—Two lectures; one laboratory. Prerequisite, Hort. 1 f.

The proper management of commercial orchards in Maryland. Advanced work is taken up on the subjects of culture, fertilization, pollination, pruning, thinning, spraying, spray removal, picking, packing, marketing, and storage of fruits. Given in alternate years. (Not offered in 1936-1937.) (Wentworth.)

**Hort.** 102 f. *Economic Fruits of the World* (2)—Two lectures. Prerequisites, Hort. 1 f and Hort. 101 f.

A study is made of the botanical, ecological, and physiological characteristics of all species of fruit-bearing plants of economic importance, such as the date, pineapple, fig, olive, banana, nut-bearing trees, citrus fruits, and newly introduced fruits, with special reference to their cultural requirements in certain parts of the United States and the insular possessions. All fruits are discussed in this course which have not been discussed in a previous course. Given in alternate years. (Not offered in 1936-1937.) (Beaumont.)

**Hort.** 103 f. *Tuber and Root Crops* (2)—One lecture; one laboratory. Prerequisites, Hort. 11 s and 12 f.

A study of white potatoes and sweet potatoes, considering seed, varieties, propagation, soils, fertilizers, planting, cultivation, spraying, harvesting, storing, and marketing. Given in alternate years. (Not offered in 1936-1937.) (Cordner.)

**Hort.** 104 s. *Advanced Truck Crop Production* (2)—Prerequisites, Hort. 11 s, 12 f, and 13 s.

A trip of one week is made to the commercial trucking section of Maryland, Delaware, New Jersey, and Pennsylvania. A study of the markets in several large cities is included in this trip. Each student is required to hand in a detailed report of this trip. The cost of such a trip should not exceed thirty dollars per student. The time will be arranged each year with each class. (Frazier.)

**Hort.** 105 f. *Systematic Olericulture* (3)—Two lectures; one laboratory. Prerequisites, Hort. 11 s and 103 f.

A study of the classification and nomenclature of vegetables. Descriptions of varieties and adaptation of varieties to different environmental conditions. Given in alternate years. (Not offered in 1935-1936.) (Cordner.)

**Hort.** 106 y. *Plant Materials* (5)—One lecture; one or two laboratories.

A field and laboratory study of trees, shrubs, and vines used in ornamental planting. Given in alternate years. (Not offered in 1936-1937.) (Thurston.)

**Hort.** 107 f. *Systematic Pomology* (3)—Two lectures; one laboratory.

The history, botany, and classification of fruits and their adaptation to Maryland conditions. Exercises are given in describing and identifying the leading commercial varieties of fruits. Given in alternate years. (Not offered in 1935-1936.) (Wentworth.)

**Hort.** 108 f or s. *Advanced Practical Pomology.*

A trip of one week to the fruit regions of Maryland, Pennsylvania, Delaware, and Virginia, for the purpose of studying the commercial and experimental phases of the fruit industry. Before making the trip the students will be required to make a study of the experimental work in progress at the Experiment Stations to be visited and to know the commercial aspects of the industry in the several states. A detailed report will be required after the trip. (Staff.)

### For Graduates

**Hort.** 201 y. *Experimental Pomology* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practice in pomology; methods and difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Schrader.)

**Hort.** 202 y. *Experimental Olericulture* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practice in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Boswell.)

**HORT. 203 s.** *Experimental Floriculture* (2)—Two lectures.

A systematic study of the sources of knowledge and opinion as to practice in floriculture. The results of all experimental work in floriculture which has been or is being conducted will be thoroughly discussed.

**HORT. 204 s.** *Methods of Research* (2)—One lecture; one laboratory.

Special drill will be given in the making of briefs and outlines of research problems, in methods of procedure in conducting investigational work, and in the preparation of bulletins and reports. A study of the origin, development, and growth of horticultural research is taken up. A study of the research problems being conducted by the Department of Horticulture will be made, and students will be required to take notes on some of the experimental work in the field and become familiar with the manner of filing and cataloguing all experimental work. (Beaumont.)

**HORT. 205 y.** *Advanced Horticultural Research and Thesis* (4, 6, or 8). Students will be required to select problems for original research in pomology, vegetable gardening, floriculture, or landscape gardening. These problems will be continued until completed, and final results are to be published in the form of theses. (Staff.)

**HORT. 206 y.** *Advanced Horticultural Seminar* (2).

This course will be required of all graduate students. Students will be required to give reports either on special topics assigned them, or on the progress of their work being done in courses. Members of the departmental staff will report special research from time to time. (Beaumont.)

**HORT. 207 y.** *National and International Horticultural Problems* (2).

Discussions of factors affecting the profitable production of horticultural crops in this and other countries; the competition between different horticultural crops in the United States and between American and foreign crops, and factors influencing the development of new horticultural industries in America. The applications of various fundamental sciences to the solutions of regional and national problems in horticultural crop production. (Auchter.)

### Requirements of Graduate Students in Horticulture

*Pomology*—Graduate students specializing in Pomology who are planning to take advanced degrees will be required to take or offer the equivalent of the following courses: Hort. 1 f, 101 f, 102 f, 107 f, 201 y, 204 s, 205 y, 206 y, and 207 y; Plant Biochemistry (Plt. Phys. 201 s); Plant Microchemistry (Plt. Phys. 203 s); Plant Biophysics (Plt. Phys. 202 f); Organic Chemistry (Chem. 8 y); Plant Anatomy (Bot. 101 f).

*Olericulture*—Graduate students specializing in vegetable gardening who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 12 f, 13 s, 103 f, 105 f, 202 y, 204 s, 205 y, and 206 y; Plant Microchemistry (Plt. Phys. 203 s); Plant Biochemistry (Plt. Phys. 201 s); Plant Biophysics (Plt. Phys. 202 f); Organic Chemistry (Chem. 8 y); Plant Anatomy (Bot. 101 f).

*Floriculture*—Graduate students specializing in floriculture who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 22 y, 23 y, 24 s, 25 y, 26 f, 203 s, 204 s, 205 y, and 206 y; Plant Biophysics (Plt. Phys. 202 f); Plant Biochemistry (Plt. Phys. 201 s); Organic Chemistry (Chem. 8 y); Plant Taxonomy (Bot. 103 f or s); Plant Anatomy (Bot. 101 f); Plant Ecology (Plant Phys. 101 s).

*Landscape Gardening*—Graduate students specializing in landscape gardening who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 32 f, 33 s, 35 f, 105 f, 204 s, and 206 y; Plant Taxonomy (Bot. 103 f or s); Dr. 1 y and 2 y; Plane Surveying (Surv. 2 y); and Plant Ecology (Plt. Phys. 101 s).

*Additional Requirements*—In addition to the above required courses, all graduate students in horticulture are advised to take physical and colloidal chemistry.

Unless graduate students in Horticulture have had certain courses in entomology, plant pathology, genetics, and biometry, certain of these courses will be required.

*Note:* For courses in Biochemistry and Biophysics, see Plant Physiology, under Botany.

## LATIN

MR. MURPHY.

**LAT. 1 y.** *Elementary Latin* (6)—Three lectures.

This course is offered to cover a substantial and accurate course in grammar and syntax, with translation of simple prose. It is substantially the equivalent of one entrance unit in Latin.

**LAT. 2 y.** (6)—Three lectures. Prerequisite, Lat. 1 y or one entrance unit in Latin.

Texts will be selected from Virgil, with drill on prosody, and Cicero.

## LIBRARY SCIENCE

MISS BARNES, MR. FOGG.

**L. S. 1 f or s.** *Library Methods* (1)—Freshman year. Required of students registered in the College of Arts and Sciences. Elective for others.

This course is intended to help students use the library with greater facility. Instruction is given by practical work with the various catalogues, indexes, and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much-used reference books which the student will find helpful throughout the college course.

## MATHEMATICS

PROFESSORS T. H. TALIAFERRO, GWINNER; ASSOCIATE PROFESSOR DANTZIG; ASSISTANT PROFESSORS SPANN, YATES; MR. ALRICH, MR. STINSON, MR. NICHOLS, MR. WILLIAMS, MISS ZIMMERMAN.

MATH. 1 f. *Algebra* (3)—Three lectures. Required of Pre-medical, Pre-dental, Business Administration, and certain Chemistry students, and alternative for others in the College of Arts and Sciences. Elective for other students. Prerequisite, Algebra to Quadratics.

This course includes the study of quadratics, simultaneous quadratic equations, graphs, progressions, elementary theory of equations, binomial theorem, permutations, combinations, etc. The course will be repeated during the second semester.

MATH. 2 s. *Plane Trigonometry* (3)—Three lectures. Required of Pre-medical, Pre-dental, Business Administration, and certain Chemistry students, and alternative for others in the College of Arts and Sciences. Elective for other students. Prerequisites, Math. 1 f and Plane Geometry.

A study of the trigonometric functions and the deduction of formulas with their application to the solution of plane triangles and trigonometric equations. This course will be repeated during the Summer Session.

MATH. 3 f. *Advanced Algebra; Trigonometry* (5)—Five lectures. Required of freshmen in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisites, Algebra completed and Solid Geometry.

a. Advanced Algebra includes a rapid review of algebra required for entrance, elementary theory of equations, binomial theorem, permutations, combinations, and other selected topics.

b. Trigonometry includes trigonometric functions, the deduction of formulas and their application to the solution of plane triangles, trigonometric equations, spherical triangles, etc.

This course will be repeated during the second semester.

MATH. 4 s. *Analytic Geometry* (5)—Five lectures. Required of students in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisite, Math. 3 f.

This course includes a study of the curve and equation, the straight line, the conic sections, empirical equations, transcendental curves, the plane and the straight line in space, and the quadric surfaces.

An opportunity is also afforded to take this course during the summer.

MATH. 5 y. *Calculus and Plane Analytic Geometry* (6)—Three lectures. Required of students in Chemistry other than Industrial Chemistry. Elective for other students. Prerequisites, Math. 1 f and 2 s.

Emphasis will be placed on calculus, including the study of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc., in the plane.

Plane analytic geometry will, wherever possible, be attacked from the viewpoint of the calculus, and includes the study of the loci of equations in two variables, the straight line, conic sections and transcendental curves, and the development of empirical equations from graphs.

MATH. 6 y. *Calculus; Elementary Differential Equations* (10)—Five lectures. Required of sophomores in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisite, Math. 4 s.

Calculus is studied throughout the year. In the second semester several weeks are devoted to the study of elementary differential equations.

Calculus includes a discussion of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc. in the plane; and the determination of areas, volumes, etc., in space.

The first semester of this course will be repeated in the second semester, and an opportunity will be afforded to take the second semester of this course during the summer.

MATH. 7 s. *Solid Geometry* (2)—Two lectures. Prerequisite, Plane Geometry completed. Open only to freshmen. Elective. College credit given only to students in Education. Other students may take the course without credit.

The course covers the line, the plane, polyhedrons, cylinders, cones, and the sphere.

MATH. 8 f. *Algebra and Solid Geometry* (0)—Five lectures. Prerequisites, Algebra to Quadratics, and Plane Geometry. Open only to students desiring to enter the College of Engineering or the course in Industrial Chemistry who have had no opportunity to take these subjects in high school.

(a) Algebra includes quadratics, simultaneous quadratic equations, graphs, progressions, binomial theorem, etc.

(b) Solid Geometry includes the line, the plane, polyhedrons, cylinders, cones, and the sphere.

### For Advanced Undergraduates and Graduates

MATH. 101 f. *The Mathematical Theory of Investment* (3)—Three lectures. Prerequisites, Math. 1 f and 2 s. Open only to juniors and seniors. Required of students in Business Administration.

The application of mathematics to financial transactions; compound interest and discount, construction and use of interest tables, sinking funds, annuities, depreciation, valuation and amortization of securities, building and loan associations, life insurance, etc. (Spann.)

MATH. 102 s. *Elements of Statistics* (3)—Three lectures. A continuation of Math. 101 f. Prerequisites, Math. 1 f and 2 s. Open only to juniors and seniors. Required of students in Business Administration.

A study of the fundamental principles used in statistical investigation. See Genetics 114 s. (Kemp.)

MATH. 103 f. *Differential Equations* (3)—Three lectures. Elective. Prerequisite, Math. 6 y, or Math. 5 y and consent of instructor.

Integration of ordinary differential equations; singular solutions; integration by series; applications to geometry, physics, etc. (Yates and Alrich.)

MATH. 104 s. *Theoretical Mechanics* (3)—Three lectures. Elective. Prerequisite, Math. 6 y, or Math. 5 y and consent of instructor.

Elementary vector analysis; statics; kinematics; the equations of motion; applications. (Alrich.)

MATH. 105 f. *Advanced Topics in Algebra* (3)—Three lectures. Elective. Not open to juniors.

Theory of equations; Galois groups; matrices and determinants; linear substitutions; quadratic forms. (Not given in 1935-1936.) (Dantzig.)

MATH. 106 s. *Advanced Topics in Geometry* (3)—Three lectures. Elective. Not open to juniors.

The conic sections; homogeneous coordinates; the quadric surfaces; collineations; principles of projective geometry. (Not given in 1935-1936.) (Dantzig.)

MATH. 107 f. *Elementary Theory of Functions* (3)—Three lectures. Elective. Not open to juniors.

Functions of a real variable; polynomials and rational functions; transcendental functions; principles of graphing and of approximation. (Dantzig.)

MATH. 108 s. *Vector Analysis* (3)—Three lectures. Elective. Not open to juniors.

Vector algebra; applications to geometry and physics; vector differentiation and integration; applications to mathematical physics. (Dantzig.)

MATH. 109 f. *Advanced Algebra and Theory of Equations* (2)—Two lectures. Elective.

This course is designed to prepare the student for advanced work. A study of the number system is made with special emphasis on the complex field. Further topics include the solution of equations, symmetric functions, fractional rational functions, partial fractions, series, determinants. (Taliaferro.)

MATH. 110 s. *Theory of Numbers* (2)—Two lectures. Elective.

Systems of numeration; factorization theorems and prime numbers; criteria of primality; linear congruences and diophantine equations; higher congruences; the theorem of Fermat; quadratic residues. (Taliaferro.)

## For Graduates

MATH. 201 y. *Seminar and Thesis* (4-10)—Credit hours will be given in accordance with work done. (Dantzig.)

MATH. 202 f. *Fundamental Concepts of Mathematics* (2)—Two lectures. Elective.

Foundations of arithmetic, algebra, analysis, and geometry. A critical study of such concepts as number, limit, continuity, and the infinite; the axioms of geometry; measurement; spatial forms and pan-geometry; the concepts of space and time; and the relativity theory. (Not given in 1935-1936.) (Dantzig.)

MATH. 203 s. *Differential Geometry* (2)—Two lectures. Elective.

Plane curves: parametric representation, general coördinates, orthogonal networks; skew curves: curvature and torsion; applications to kinematics; theory of surfaces: lines of curvature, asymptotic lines, geodetics; Gaussian geometry on a surface; special surfaces: developables, applicable surfaces, surfaces of revolution. (Not given in 1935-1936.) (Dantzig.)

MATH. 204 f. *History of Mathematics* (2)—Two lectures. Elective.

History of individual mathematical disciplines; arithmetic and algebra; geometry and trigonometry; the calculus and theory of functions; the nature of mathematical discovery and the influence of the great discoveries of the past upon the subsequent course of the science. A brief survey of the most salient modern discoveries. (Dantzig.)

MATH. 205 s. *Theory of Transformations* (2)—Two lectures. Elective.

The transformations of classical geometry; infinite groups; infinitesimal conformal transformations; co-areal transformations; Cremona transformations; various applications of the theory. (Dantzig.)

MATH. 206 f. *Advanced Calculus* (2)—Two lectures. Elective.

This course presupposes a knowledge of elementary calculus and the elements of differential equations. A study is made of power series, hyperbolic functions, Taylor's series, partial differentiation, Jacobians, curvilinear coördinates, differentiation and integration of an integral form, certain definite integrals, gamma and beta functions, Green's and Stokes' theorems, review of differential equations with particular attention to Legendre's, Bessel's, and Laplace's equations. (Not given in 1935-1936.) (Yates.)

MATH. 207 s. *Theory of Functions of a Complex Variable* (2)—Two lectures. Elective.

This course begins with a study of series and elementary functions, continuing with a detailed examination of rational functions and transformations. Particular attention is paid to inversive geometry. General analytic functions are then considered under the following topics: differentiation and integration, singular points, residues, conformal representation, Taylor's series, Laurent's series, Riemann sheets, etc. (Not given in 1935-1936.) (Yates.)

MATH. 208 f. *Differential Equations of Physics* (2)—Two lectures. Elective.

A short review of vector calculus and elementary differential equations is made at the beginning of the course. Topics to be considered include the theory of vibrations, the wave equation, potential theory, boundary value problems, spherical harmonics, Bessel functions, and integral equations. (Yates.)

MATH. 209 s. *Fourier Series and Spherical Harmonics* (2)—Two lectures. Elective.

This is designed as a continuation of Math. 208 f. The theory of infinite series is studied, with attention to continuity, convergence, summability, differentiation and integration, etc., in order to form a good foundation for the consideration of Fourier series and integrals, with applications to heat and electricity. (Yates.)

## MILITARY SCIENCE AND TACTICS

PROFESSOR OF MILITARY SCIENCE AND TACTICS, MAJOR A. C. GILLEM, JR., U. S. A.; ASSISTANT PROFESSORS CAPTAIN FRANK WARD AND ONE CAPTAIN TO BE DETAILED, 1ST LIEUTENANT J. W. HARMONY; WARRANT OFFICER WILLIAM H. MCMANUS, AND STAFF SERGEANT EARL HENDRICKS.

### *BASIC COURSE

*Freshman Year*—1 lecture; 2 drill periods.

M. I. 1 y. *Basic R. O. T. C.* (2).

The following subjects are covered:

#### First Semester

National Defense Act, including basic organization and the R. O. T. C.; military courtesy, command and leadership; military hygiene and first aid; marksmanship.

#### Second Semester

Physical drill, command and leadership, map reading; military history and policy; military hygiene and first aid; citizenship; international situation.

*Sophomore Year*—1 lecture; 2 drill periods.

M. I. 2 y. *Basic R. O. T. C.* (4).

The following subjects are covered:

#### First Semester

Scouting and patrolling, automatic rifle, military history, leadership.

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* Required of qualified students.

#### Second Semester

Military history, musketry, combat principles of the squad and section, leadership.

### **ADVANCED COURSE

*Junior Year*—3 lectures; 2 drill periods.

M. I. 101 y. *Advanced R. O. T. C.* (6).

The following subjects are covered:

#### First Semester

Aerial photograph reading, machine guns, howitzer weapons, combat principles, leadership.

#### Second Semester

Combat principles of rifle, machine gun, and howitzer platoons, pistol marksmanship, review of rifle marksmanship, leadership.

*Senior Year*—3 lectures; 2 drill periods.

M. I. 102 y. *Advanced R. O. T. C.* (6).

The following subjects are covered:

#### First Semester

Combat principles (including organization of larger combat units), command and leadership, weapons (tanks), chemical agents and uses, mechanization.

#### Second Semester

Company administration, military history and policy, military law, Officers' Reserve Corps regulations.

## MODERN LANGUAGES

PROFESSOR ZUCKER; ASSOCIATE PROFESSORS KRAMER and FALLS; MISS WILCOX, DR. RICHARDS, MR. SCHWEIZER, MISS FARRINGTON, MRS. BLEW.

All students whose major is in modern languages are required to take *Introduction to Comparative Literature* (Comp. Lit. 101 f and 102 s), and to complete by the end of their senior year a reading list in the literature of their respective languages. The following courses are recommended: *European History* (H. 1 y), *The Old Testament as Literature* (Eng. 130 f), *History of English Literature* (Eng. 7 f and 8 s), and *Romanticism in France, Germany, and England* (Comp. Lit. 105 y). For a major in German, *Anglo-Saxon* (Eng. 119 y).

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** Elective for qualified students.

Specific requirements for the majors in the different languages are as follows: for French, French 8 y, 9 y, 10 y, and two year-courses in the 100 group; for German, German 10 y and two year-courses in the 100 group; for Spanish, Spanish 6 y and two year-courses in the 100 group.

### A. French

French. 1 y. *Elementary French* (6)—Three lectures. No credit given unless both semesters are completed. Students who offer two units in French for entrance, but whose preparation is not adequate for second-year French, receive half credit for this course.

Elements of grammar, composition, pronunciation, and translation.

French 2 y. *Second-Year French* (6)—Three lectures. Prerequisite, French 1 y or equivalent.

Study of grammar continued; composition, conversation, translation. Texts selected from modern prose.

French 3 y. *Pronunciation and Conversation* (2)—One lecture. Prerequisite, French 1 y.

This elementary course stressing drill in French sound and practice in simple current phrases cannot be entered in the second semester. Students who offer for entrance at least two years of high school French cannot take this course for credit.

French 4 y. *The Development of the French Novel* (6)—Three lectures, and reports.

Introductory study of the history and growth of the novel in French literature; of the lives, work, and influence of various novelists.

French 5 y. *The Development of the French Drama* (6)—Three lectures, and reports.

Introductory study of the French drama of the seventeenth, eighteenth, and nineteenth centuries. Translation and collateral reading. (Not given in 1935-1936.)

French 6 y. *Readings in Contemporary French* (6)—Three lectures.

Translation; collateral reading; reports on history, criticism, fiction, drama, lyric poetry. (Not given in 1935-1936.)

French 8 y. *French Phonetics* (2)—One lecture. Prerequisites, French 1 y and French 3 y.

French 9 y. *French Grammar and Composition* (4)—Two lectures. Prerequisite, French 2 y.

(French 8 y and 9 y are required of students preparing to teach French.)

French 10 y. *Introduction to French Literature* (6)—Three lectures. Prerequisite, French 2 y or equivalent.

An elementary survey introducing the student to the chief authors and movements in French literature.

#### For Advanced Undergraduates and Graduates

A more intensive survey of French literature is offered by means of rotating courses roughly divided by centuries.

French 101 y. *History of French Literature in the Middle Ages and the Renaissance* (4)—Two lectures. (Not given in 1935-1936.) (Falls.)

French 102 y. *History of French Literature in the 17th Century* (4)—Two lectures. (Not given in 1935-1936.) (Wilcox.)

French 103 y. *History of French Literature in the 18th Century* (4)—Two lectures. (Falls.)

French 104 y. *History of French Literature in the 19th Century* (4)—Two lectures. (Wilcox.)

French 110 y. *Advanced Composition* (4)—Two lectures. Open only to students whose qualifications prove satisfactory to the instructor. Prerequisite, French 9 y.

An attempt to introduce students to the genius of the French language. (Falls.)

#### For Graduates

French 201 y. *Research.* Credits determined by work accomplished.

French 202 y. *Diderot and the Encyclopaedists* (4)—Two lectures. (Not given in 1935-1936.) (Falls.)

French 203 y. *Aspects and Conceptions of Nature in French Literature of the 18th Century* (4)—Two lectures. (Not given in 1935-1936.) (Falls.)

French 204 y. *Georges Duhamel, Poet, Dramatist, and Novelist* (4)—Two lectures. (Falls.)

Attention is also called to Comparative Literature 105 y, *Romanticism in France, Germany, and England,* and to Modern Language 202 y, *Seminar.*

### B. German

German 1 y. *Elementary German* (6)—Three lectures. No credit given unless both semesters are completed. Students who offer two units in German for entrance, but whose preparation is not adequate for second-year German, receive half credit for this course.

Elements of grammar, composition, pronunciation, and translation.

German 2 y. *Second-Year German* (6)—Three lectures. Prerequisite, German 1 y or equivalent.

Reading of narrative and technical prose, grammar review, oral and written practice.

German 3 y. *Pronunciation and Conversation* (2)—One lecture. Prerequisite, German 1 y.

This elementary course stressing drill in German sounds and practice in simple current phrases cannot be entered in the second semester. Students who offer for entrance at least two years of high school German cannot take this course for credit.

GERMAN 4 f. *Advanced German* (3)—Three lectures. Prerequisite, German 2 y or equivalent.

Rapid reading of novels and short stories from recent German literature.

GERMAN 5 s. *Advanced German* (3)—Three lectures. Continuation of German 4 f.

GERMAN 6 f. *Advanced German* (3)—Three lectures. Prerequisite, German 2 y or equivalent.

Rapid reading of dramas from recent German literature. This course alternates with German 4 f. (Not given in 1935-1936.)

GERMAN 7 s. *Advanced German* (3)—Three lectures. Continuation of German 6 f. (Not given in 1935-1936.)

GERMAN 10 y. *German Grammar and Composition* (4)—Two lectures. Prerequisite, German 2 y.

(This course is required of all students preparing to teach German.)

### For Advanced Undergraduates and Graduates

(Prerequisite for courses in this group, German 4 f and 5 s or equivalent.)

GERMAN 101 f. *German Literature of the Eighteenth Century* (3)—Three lectures.

The earlier classical literature. (Zucker.)

GERMAN 102 s. *German Literature in the Eighteenth Century* (3)—Three lectures.

The later classical literature. (Zucker.)

GERMAN 103 f. *German Literature of the Nineteenth Century* (3)—Three lectures.

Romanticism and Young Germany. (Not given in 1935-1936.) (Zucker.)

GERMAN 104 s. *German Literature of the Nineteenth Century* (3)—Three lectures.

The literature of the Empire. (Not given in 1935-1936.) (Zucker.)

### For Graduates

GERMAN 202 y. *The Modern German Drama* (3)—Three lectures.

From Hauptmann to the present day writers. (Not given in 1935-1936.) (Zucker.)

GERMAN 203 y. *Schiller* (4)—Two lectures.

Study of the life and works of Schiller with especial reference to the history of his dramas. (Zucker.)

GERMAN 205 y. *Research.*—Credits determined by work accomplished. (Zucker.)

Attention is also called to Comparative Literature 105 y, *Romanticism in France, Germany, and England,* and to Modern Language 202 y, *Seminar.*

### C. Spanish

SPANISH 1 y. *Elementary Spanish* (6)—Three lectures. No credit given unless both semesters are completed. Students who offer two units in Spanish for entrance, but whose preparation is not adequate for second-year Spanish, receive half credit for this course.

Elements of grammar, composition, punctuation, and translation.

SPANISH 2 y. *Second-Year Spanish* (6)—Three lectures. Prerequisite, Spanish 1 y or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

SPANISH 3 y. *Pronunciation and Conversation* (2)—One lecture. Prerequisite, Spanish 1 y.

This elementary course stressing drill in Spanish sounds and practice in simple current phrases cannot be entered in the second semester. Students who offer for entrance at least two years of high school Spanish cannot take this course for credit.

SPANISH 6 y. *Advanced Conversation and Composition* (4)—Two lectures. Prerequisite, Spanish 2 y or equivalent.

Introduction to phonetics. Oral and written composition.

(This course is required of all students preparing to teach Spanish.)

SPANISH 9 f. *The Spanish Novel* (3)—Three lectures.

Designed to give facility in reading. Somewhat simplified, edited texts of classic novels and short stories of the Golden Age will be used. (Not given in 1935-1936.)

SPANISH 10 s. *The Spanish Novel* (3)—Three lectures.

Careful reading of some modern novels. (Continuation of Spanish 9 f.) (Not given in 1935-1936.) (Spanish 9 f and 10 s alternate with Spanish 11 y.)

SPANISH 11 y. *Introduction to Spanish Literature* (6)—Three lectures.

An elementary survey introducing the student to the chief authors and movements in Spanish literature.

### For Advanced Undergraduates and Graduates

SPANISH 101 f. *Spanish Poetry* (3)—Three lectures.

The epic; the ballad and popular poetry; early lyrics; poetry of the Golden Age.

SPANISH 102 s. *Spanish Poetry* (3)—Three lectures.

Poetry of the 18th, 19th, and 20th centuries.

SPANISH 103 f. *The Spanish Drama* (3)—Three lectures.

Drama of the Golden Age. (Not given in 1935-1936.)

SPANISH 104 s. *The Spanish Drama* (3)—Three lectures.

The drama since Calderon. (Not given in 1935-1936.)

### For Graduates

SPANISH 201 y. *The Golden Age in Spanish Literature* (6)—Three lectures.

Detailed study of the classical authors. (Richards.)

SPANISH 203 y. *Research.* Credits determined by work accomplished. (Richards.)

## D. Comparative Literature

### For Advanced Undergraduates and Graduates

At the present time the Head of the Department of Modern Languages has direction of the work in Comparative Literature, which, in addition to the courses listed hereafter, includes Eng. 105 s, Eng. 119 y, Eng. 130 f, and Eng. 204 s.

A minor only may be taken in Comparative Literature. Any of these courses may, with the consent of the student's adviser, be counted towards a major or a minor in English.

COMP. LIT. 101 f. *Introduction to Comparative Literature* (3)—Three lectures.

Survey of the background of European literature through study in English translation of Greek and Latin literature. Special emphasis is laid on the development of the epic, tragedy, comedy, and other typical forms of literary expression. The debt of modern literature to the ancients is discussed and illustrated. (Zucker.)

COMP. LIT. 102 s. *Introduction to Comparative Literature* (3)—Three lectures.

Continuation of Comp. Lit. 101 f; study of medieval and modern Continental literature. (Zucker.)

COMP. LIT. 104 s. *The Modern Ibsen* (2)—Two lectures. Lectures on the life of Ibsen and the European drama in the middle of the Nineteenth Century. Study of Ibsen's social and symbolical plays in Archer's translation. (Not given in 1935-1936.) (Zucker.)

COMP. LIT. 105 y. *Romanticism in France, Germany and England* (6)—Three lectures, and reports.

Introduction to the chief authors of the Romantic movement in England, France, and Germany, the latter two groups being read in English translation. Lectures on the chief thought currents and literary movements of the late eighteenth and early nineteenth centuries. First semester: Rosseau to Gautier; Buerger to Heine. Second semester; Byron, Shelley, Keats, and others. The course is conducted by members of both the Modern Language and the English departments. (Not given in 1935-1936.)

(Wilcox, Zucker, Hale.)

### For Graduates

MODERN LANGUAGE 202 y. *Seminar* (2-4). (Required of all graduate students in the department.) One meeting weekly.

COMP. LIT. 203 y. *Studies in the History of the Theatre* (2)—Two lectures.

Survey of the history of the stage and staging from the Greeks to the present day. Exercises in the reconstruction of the manner of staging of various plays. (Zucker.)

## MUSIC

MR. RANDALL, SERGT. SIEBENEICHEN, MRS. BLAISDELL.

MUSIC 1 y. *Music Appreciation* (2)—One lecture.

A study of all types of classical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra and the instruments that it employs. A study of musical form. The development of the opera and oratorio. Great singers of the past and present. Well-known musicians occasionally appear as guest lecturers and performers.

MUSIC 2 y. *History of Music* (2)—One lecture.

A comprehensive course in the history of music covering the development of all forms of music from ancient times through the renaissance; the classic and the romantic schools; and the more modern composers.

MUSIC 3 y. *University Chorus* (1).

This course is offered for those interested in part-singing. After voice trials, students who have ability to read and sing music of the grade of easy songs are admitted. Members of the Women's Chorus and the Men's Glee Club indicated hereafter are combined at times for mixed chorus singing.

(a) Women's University Chorus. Study of part-singing for women's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the chorus.

(b) Men's Glee Club. Study of part-singing for men's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the Glee Club.

MUSIC 4 y. *University Orchestra* (1).

The purpose of the University Orchestra is study of the classics. Works of the standard symphonists from Haydn and Mozart to Wagner and the modern composers are used. Students who play orchestral instruments are eligible for membership. At least one rehearsal of two hours duration is held each week, and all players are expected to take part in public performances.

## PHILOSOPHY

PROFESSOR SPROWLS.

PHIL. 1 f. *Introduction to Philosophy* (3)—Three lectures. Not open to freshmen.

A study of the development of philosophical thought from the early Greeks to the modern era.

PHIL. 2 s. *Logic* (3)—Three lectures. Not open to freshmen.

An introduction to the forms of reasoning from Aristotle to the present. Induction, deduction, causal relations, hypotheses, fallacies, judgment.

### For Advanced Undergraduates and Graduates.

PHIL. 101 s. *Advanced Philosophy* (3)—Three lectures. Prerequisite, Phil. 1 f.

Stresses the problems of philosophy; empirical knowledge, pragmatism, realism, vitalism, naturalism, beauty, morality, religion. (Sprowls.)

## PHYSICS

PROFESSOR EICHLIN; MR. CLARK.

PHYS. 1 y. *General Physics* (8)—Three lectures; one laboratory. Required of students in the Pre-medical curriculum and in the General and Agricultural Chemistry curricula. Elective for other students. Prerequisites, Math. 1 f and 2 s.

A study of the physical phenomena in mechanics, heat, sound, magnetism, electricity, and light.

PHYS. 2 y. *General Physics* (10)—Four lectures; one laboratory. Required of all students in the Engineering and Industrial Chemistry curricula. Elective for other students. Prerequisites, Math. 3 f and 4 s.

A study of mechanics, heat, sound, magnetism, electricity, and light.

PHYS. 3 s. *Special Applications of Physics* (4)—Three lectures; one laboratory. Especially for students in Home Economics.

A discussion of the laws and theories of Physics from the viewpoint of their practical application.

### For Advanced Undergraduates and Graduates

PHYS. 101 f. *Physical Measurements* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 1 y or 2 y.

This course is designed for the study of physical measurements and for familiarizing the student with the manipulation of the types of apparatus used in experimentation in physical problems. (Clark.)

PHYS. 102 y. *Graphic Physics* (2)—One lecture. Elective. Prerequisite, Phys. 1 y or 2 y.

A study of physical laws and formulas by means of scales, charts, and graphs. (Eichlin.)

PHYS. 103 f. *Advanced Physics* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 2 y.

An advanced study of molecular physics, wave motion, and heat. (Eichlin.)

PHYS. 104 s. *Advanced Physics* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 2 y.

An advanced study of electricity and magnetism. (Eichlin.)

PHYS. 105 y. *Advanced Physics* (6)—Three lectures. Elective. Prerequisite, Phys. 1 y or 2 y.

A study of physical phenomena in optics, spectroscopy, conduction of electricity through gases, etc., with a comprehensive review of their basic principles. (Eichlin.)

### For Graduates

PHYS. 201 y. *Modern Physics* (6)—Three lectures.

A study of some of the problems encountered in modern physics. (Not given in 1935-1936.) (Eichlin.)

PHYS. 202 y. *Modern Physics* (6)—Three lectures. (Eichlin.)

## POULTRY HUSBANDRY

PROFESSOR WAITE; ASSISTANT PROFESSOR QUIGLEY.

POULTRY 1 s. *Farm Poultry* (3)—Three lectures.

A general course in poultry raising, including housing, feeding, incubation, brooding, breeds, breeding, selection of stock, culling, general management, and marketing.

### For Advanced Undergraduates and Graduates

POULTRY 102 f. *Poultry Keeping* (4)—Two lectures; two laboratories. Students encouraged but not required to take Poultry 1 s as a prerequisite.

A study of housing and yarding, practice in making poultry house plans, feeding, killing, and dressing.

POULTRY 103 s. *Poultry Production* (4)—Two lectures; two laboratories. Prerequisites, Poultry 1 s and 102 f.

The theory and practice of incubation and brooding, both natural and artificial. Study of incubators and brooders, assembling, etc. Considerable stress will be placed on the proper growing of chicks into good laying pullets. General consideration of poultry disease. Caponizing.

**POULTRY** 104 f. *Poultry Breeds* (4)—Two lectures; two laboratories. Prerequisites, Poultry 1 s, 102 f, and 103 s.

A study of the breeds of poultry, the judging of poultry, including culling, fitting for exhibition, and the methods of improvement by breeding.

**POULTRY** 105 s. *Poultry Management* (4)—Two lectures; two laboratories. Prerequisites, Poultry 1 s, 102 f, 103 s, and 104 f.

A general fitting together and assembling of knowledge gained in the previous courses. Culling, marketing, including both selling of poultry products and the buying of supplies, keeping poultry accounts, hatchery management and operation, a study of poultry profits, how to start.

## PSYCHOLOGY

PROFESSOR SPROWLS.

PSYCH. 1 f or s. *Elements of Psychology* (3)—Two lectures and one conference. Seniors in this course receive but two credits.

The concept of consciousness as dependent upon the reactions of the individual is applied to the problems of human behavior. In this course the fundamental facts and principles of mental life are presented as a basis, not only for better understanding the behavior of others, but also for the intelligent use of individual capacities and the formation of desirable personality and character traits. This course is given in both the first and second semesters.

See "Education" for description of the following courses:

ED. PSYCH. 1 f. *Educational Psychology* (3).

ED. PSYCH. 101 s. *Advanced Educational Psychology* (3).

ED. PSYCH. 102 f. *Educational Measurements* (3).

ED. PSYCH. 105 s. *Mental Hygiene* (3).

## PUBLIC SPEAKING

PROFESSOR RICHARDSON; ASSISTANT PROFESSOR WATKINS; MISS BROWN.

P. S. 1 y. *Reading and Speaking* (2)—One lecture.

The principles and technique of oral expression: enunciation, emphasis, inflection, and force. The preparation and delivery of short original speeches. Impromptu speaking. Theory and practice of parliamentary procedure.

P. S. 2 f. *Advanced Public Speaking* (2)—Two lectures.

Advanced work on basis of P. S. 1 y, with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social, and political organizations, etc., and organizations in the fields of the prospective vocations of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after-life.

P. S. 3 s. *Advanced Public Speaking* (2)—Two lectures. Continuation of P. S. 2 f.

P. S. 4 y. *Oral Technical English* (2)—One lecture.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. Argumentation. This course is especially adapted to the needs of engineering students, and is coordinated with the seminars of the College of Engineering.

P. S. 5 y. *Advanced Oral Technical English* (2)—One lecture.

This course is a continuation with advanced work of P. S. 4 y. Much attention is given to parliamentary procedure. Some of the class programs are prepared by the students and carried out under student supervision. For junior engineering students only.

P. S. 6 y. *Advanced Oral Technical English* (2)—One lecture.

Advanced work on the basis of P. S. 5 y. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere. Senior seminar. For senior engineering students only.

P. S. 7 f. *Extempore Speaking* (1)—One lecture.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected subjects. Newspaper and magazine reading essential.

P. S. 8 s. *Extempore Speaking* (1)—One lecture.

Continuation of P. S. 7 f.

P. S. 9 f. *Debate* (2)—Two lectures.

A study of the principles of argumentation. Class work in debating. It is advised that those who aspire to intercollegiate debating should take this course.

P. S. 10 s. *Argumentation* (2)—Two lectures.

Theory and practice of argumentation and debate. Similar to course P. S. 9 f. This course is offered for the benefit of those who may find it impracticable to take this work in the first semester.

P. S. 11 f. *Oral Reading* (1)—One lecture.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

P. S. 12 s. *Oral Reading* (1)—One lecture.

Continuation of P. S. 11 f.

P. S. 13 f. *Advanced Oral Reading* (1)—One lecture. Prerequisite, P. S. 11 f or 12 s or the equivalent (if work is entirely satisfactory).

Advanced work in oral interpretation.

P. S. 14 s. *Advanced Oral Reading* (1)—One lecture. Prerequisite, P. S. 11 f or 12 s (if work is entirely satisfactory) or the equivalent.

Continuation of P. S. 13 f.

P. S. 15 f. *Special Advanced Speaking* (2)—Two lectures.

Class is organized as a Civic Club, and the work consists of such activities as are incident to such an organization—parliamentary law, committee work, prepared and impromptu speeches, etc.

Primarily for students in The College of Education.

P. S. 16 s. *Special Advanced Speaking* (2)—Two lectures.

Continuation of P. S. 15 f.

## ZOOLOGY

PROFESSORS PIERSON, TRUITT; ASSISTANT PROFESSOR PHILLIPS;
MR. BURHOE, DR. NEWCOMBE.

ZOOL. 1 f or s. *General Zoology* (4)—Two lectures; two laboratories.

An introductory course which is cultural and practical in its aim. It deals with the basic principles of animal development, structure, relationships, and activities, a knowledge of which is valuable for a proper appreciation of the biological sciences, psychology, and sociology. Typical invertebrates and the white rat, or other mammal, are studied. Required of all students in Agriculture, Arts and Science Education, and the pre-medical course.

ZOOL. 2 s. *Comparative Vertebrate Morphology* (4)—Two lectures; two laboratories. Prerequisite, Zool. 1 f or s.

A comparative study of selected organ systems in certain classes. Required of pre-medical students and those whose major is Zoology.

ZOOL. 4 s. *Economic Zoology* (2)—Two lectures. Prerequisite, one course in zoology or botany.

The content of this course will center around the problems of preservation, conservation, control, and development of the economic wild life of Maryland. The lectures will be supplemented by assigned readings and reports.

This course, combined with Zool. 6 s, should form a part of the basic training for professional foresters, game proctors, and conservationists.

ZOOL. 5 f. *The Invertebrates* (3)—One lecture; two laboratories. Prerequisite, Zool. 1 f or s. Required of students whose major is zoology and of pre-medical students.

This course consists in a study of the morphology and relationships of the invertebrate phyla.

ZOOL. 6 s. *Field Zoology* (3)—One lecture; two laboratories. Prerequisite, one course in zoology or botany.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields, and streams with special emphasis upon insects and certain vertebrates, their breeding habits, environment, and economic importance.

Intended for teachers of biology, and also for those who have an interest in nature study and outdoor life.

ZOOL. 12 s. *Animal Histology* (2)—Two laboratories. Prerequisite, one course in zoology.

A study of animal tissues and the technic involved in their preparation for microscopic examination.

ZOOL. 15 f. *Human Physiology* (3)—Two lectures; one laboratory.

A course for students who desire a knowledge of human anatomy and physiology. Emphasis is placed upon the physiology of digestion, circulation, respiration, and reproduction.

ZOOL. 16 s. *Human Physiology* (3)—Two lectures; one laboratory.

Similar to Zool. 15 f. Primarily for Home Economics students.

### For Advanced Undergraduates and Graduates

ZOOL. 101 s. *Embryology* (4)—Two lectures; two laboratories. Prerequisites, two semesters of biology, one of which should be in this department. Required of students whose major is zoology.

The development of the chick to the end of the fourth day.

This course, combined with Zool. 2 s, furnishes much of the evidence for organic evolution, and indicates man's place in nature. (Burhoe.)

ZOOL. 102 f or s or y. *Mammalian Anatomy* (2-6)—Laboratory. Prerequisite, one semester of general zoology. Registration limited. Permission of the instructor must be obtained before registration.

A course in the dissection of the cat or other mammal. Recommended for pre-medical students, for those whose major is zoology, and for prospective teachers of science in high schools. (Pierson.)

ZOOL. 103 y. *Journal Club* (2).

Reviews, reports, and discussion of current literature. Required of all students whose major is zoology. Credit is not given to juniors. (Staff.)

ZOOL. 104 f. *General Animal Physiology* (3)—Two lectures; one laboratory. Prerequisites, one year of chemistry and one course in vertebrate anatomy. Registration is limited to twelve, and permission of instructor must be obtained before registration. Required of those whose major is zoology.

A study of the physiological phenomena exhibited by animal organisms. (Phillips.)

ZOOL. 105 y. *Aquiculture* (4)—One lecture; one laboratory. Prerequisites, one course in general zoology and one in general botany.

A comprehensive consideration of the properties of natural waters which render them suitable for animal environments. (Truitt.)

Zool. 110 s. *Organic Evolution* (2)—Two lectures. Prerequisites, two semesters of biological science, one of which must be in this department.

The object of this course is to present the zoological data on which the theory of evolution rests. The lectures will be supplemented by discussion, collateral reading, and reports. (Not offered in 1935-1936.) (Pierson.)

Zool 111 f, s, or y. *Human Osteology* (2-6)—A laboratory course. Prerequisite, one semester of general zoology.

Registration limited. Permission of the instructor must be obtained before registration. (Pierson.)

Zool. 120 f. *Genetics* (3)—Two lectures; one laboratory. Prerequisite, one course in general zoology or botany.

A general introductory course designed to acquaint the student with the fundamental principles of heredity and variation. While primarily of interest to students of biology, it will be of value to those interested in the humanities. Required of students in zoology who do not have credit for Genetics 101 f. (Burhoe.)

Gen. 101 f. (See page 234.)

### For Graduates

Zool. 200 y. *Marine Zoology* (6)—One lecture; two laboratories.

Problems in salt water animal life of the higher phyla. (Truitt.)

Zool. 201 y. *Advanced Vertebrate Morphology* (6)—One lecture; two laboratories.

Comparative morphology of selected organ systems of the important vertebrate classes. (Pierson.)

Zool. 202 y. *Advanced Animal Ecology* (6)—One lecture; two laboratories.

Animal populations, their distribution, behavior, and environmental relations. (Newcombe.)

Zool. 204 y. *Advanced Animal Physiology* (6)—One lecture; two laboratories.

Analysis of certain phases of the physiology of activities of animals. (Phillips.)

Zool. 205 y. *Biology of Marine Organisms* (6)—One lecture; two laboratories.

Biotic, physical, and chemical factors of the marine environment, including certain fundamental principles of oceanography. Special reference is made to the Chesapeake Bay region. (Newcombe and Phillips.)

Zool. 206 y. *Research*—Credit to be arranged. (Staff.)

## CHESAPEAKE BIOLOGICAL LABORATORY

This laboratory, located in the center of the Chesapeake Bay country, is on Solomons Island, Maryland. It is sponsored by the University in cooperation with the Maryland Conservation Department, Goucher College,

Washington College, Johns Hopkins University, Western Maryland College, and the Carnegie Institution of Washington, in order to afford a center for wild life research and study where facts tending toward a fuller appreciation of nature may be gathered and disseminated. The program projects a comprehensive survey of the biota of the Chesapeake region.

The laboratory is open from June until September, inclusive; and during the summer of 1935 courses will be offered in the following subjects: Algology, Animal Ecology, Biology of Aquatic Insects, Invertebrates, Diatoms, Economic Zoology, Protozoology, Biological Problems.

These courses, of three credit hours each, are for advanced undergraduates and graduates. They cover a period of six weeks. Not more than two courses may be taken by a student, who must meet the requirements of the Department of Zoology as well as those of the Laboratory before matriculation. Each class is limited to five matriculates. Students working on special research problems may establish residence for the entire summer period.

Laboratory facilities, boats of various types fully equipped (pumps, nets, dredges, and other apparatus), and shallow water collecting devices are available for the work without extra cost to the student.

For full information consult special announcement, which may be obtained after April 15th, 1935, by applying to R. V. Truitt, Director, College Park, Maryland.

# SECTION IV

# DEGREES, HONORS, STUDENT REGISTER

## DEGREES CONFERRED, 1933-1934

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### HONORARY DEGREES

Edward Starr Judd, Doctor of Science
Joseph Lewis Wheeler, Doctor of Letters

### HONORARY CERTIFICATES OF MERIT

William H. Cunningham
Henry C. Whiteford
Joseph S. Merritt

### THE GRADUATE SCHOOL

#### Doctor of Philosophy

**Russell Guy Brown**
B.S. West Virginia University, 1929
M.S. West Virginia University, 1930
Dissertation:
"A Comparative Study of the Aerobic and Anaerobic Respiration in the Storage Organs of Different Plants."

**Robert Flint Chandler, Jr.**
B.S. University of Maine, 1929
Dissertation:
"Studies on the Potassium Nutrition of the Apple and Peach."

**Frank Henry John Figge**
A.B. Colorado College, 1927
Dissertation:
"The Neuro-humoral Control of Circulation of The Morphology and Physiology of the Vascular Changes Involved in Gill Reduction in Salamanders."

**Paul Lewis Fisher**
B.S. University of Maryland, 1929
M.S. University of Maryland, 1930
Dissertation:
"Part 1. Physiological Studies on the Pathogenicity of Fusarium Lycopersici Sacc. for the Tomato Plant. Part 2. Responses of the Tomato in Solution Cultures with Deficiencies and Excesses of Certain Essential Elements."

**Harry L. Greenberg**
B.S. in Pharmacy, University of Maryland, 1930
M.S. University of Maryland, 1931
Dissertation:
"A Chemical Investigation of Ergot of Rye."

**Robert Warner Hendricks**
A.B. Cornell College, 1928
M.S. University of Maryland, 1932
Dissertation:
"Phase Studies on the Reaction $Na_2B_4O_7.10H_2O = Na_2B_4O_7.5H_2O + 5H_2O$."

**John William Heuberger**
B.S. Rhode Island State College, 1929
M.S. University of Maryland, 1931
Dissertation:
"The Cytological Phenomena Associated with the Development of the Sporophyte in *Sclerotinia Fructicola.*"

**Gordon Mabey Kline**
A.B. Colgate University, 1925
M.S. George Washington University, 1926
Dissertation:
"Polymerization of Olefins. The Action of Sulfuric Acid on Methylisopropylcarbinol."

**John Koster**
B.S. Purdue University, 1924
Dissertation:
"The Electrical Conductivity of Crystallized Lead Sulphide."

**William Gordon Rose**
B.S. University of Utah, 1929
M.S. University of Maryland, 1932
Dissertation:
"The Constituents of Diamylene."

**Hyman Solomon Rubinstein**
B.S. University of Maryland, 1932
M.D. University of Maryland,1928
Dissertation:
"The Growth Function of the Pituitary gland; Its Effect upon the Brain and Brain Weight—Body Weight Relations."

**Eugene A. Siegler**
B.S. Pennsylvania State College, 1915
M.S. Pennsylvania State College, 1918
Dissertation:
"The Origin of Fleshy Roots Produced on Apple Grafts by the Hairy Root Organism, Phytomonas Rhizogenes."

**Florence Tucker Simonds**
B.S. University of Maryland, 1928
M.S. University of Maryland, 1929
Dissertation:
"A Cytological Study of the Tomato Leaf Spot and Its Casual Organism, Septoria Lycopersici (Speg.) Sacc."

**Joseph R. Spies**
A.B. University of South Dakota, 1927
M.S. University of Maryland, 1931
Dissertation:
"The Nature of Croton Resin from Croton Tiglium (Linne)."

Neil Wade Stuart
B.S. Michigan State College, 1929
M.S. University of New Hampshire, 1932

Dissertation:
"Part 1. The Determination of Amnno Nitrogen in Plant Extracts. Part 2. Nitrogenous Metabolism in Tubers of Solanum Tuberosum L."

### Master of Arts

Cecil Ravenscroft Ball
Elizabeth Hall Bear
Arthur Herbert Bryan
Cornelius Wilbur Cissel
Luther Allan Cooper
Sister Theodora Day
John Ward Fisher
Allen E. Gregory, Jr.
Helena J. Haines
Margaret Turner Herring
Idella Scarborough Horsey
Alice Watts Hostetler
Barnard DeJean Joy
Lois Elinor Lacy
Mary Catharine Mitchell
George Wesley Norris
David George Price
Clara Frances Ward
Ralph Wardlaw Watt
Thelma Marguerite Wellman

### Master of Science

Wilmer Varden Bell
William A. Boyles
Harriet Eleanor Bray
Roger Franklin Burdette
John R. M. Burger, Jr.
C. Jelleff Carr
Bernice Balch Cash
Victor Dolfman
William Heller Dyott
Harry F. Ferguson, Jr.
Donald Miller Goss
William Howard Hunt
John William Krasausky
Marian Evelyn Lane
Robert Anthony Littleford
Wilbur Everette McCann
Warren Campbell McVey
Sylvia Millett
William Arthur Pundum
R. Selena Reynolds
Emanuel Sprei
Sarah Jane Thompson
Thomas Gorsuch Wright
Alec Yedinak

## COLLEGE OF AGRICULTURE

### Bachelor of Science

Edward Wilson Auld, Jr.
Erwin Petty Beardsley
Frank Edward Blood
Paul Joseph Bush
Spencer Bliss Chase
John Evans Clark
John Cotton
Garnet Edward Davis
Vernon Thomas Doyle
*William Henry Dunbar
Charlotte Rebecca Ensor
Benjamin H. Evans
Lloyd Randolph Eyler
Bernard Francis Havlick
John Kenneth Hutchins
Beatrice Young Jarrett
Walter Hill Lappen, Jr.
Arthur Lohrmann

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*Degree conferred October, 1933.

Gerald Robert Pielke
Ralph Donald Reed
Ralph Walker Ruble
Cornelius Barrett Shear
Josiah Shepard
Robert Glenn Snyder
Elmer Eugene Thomas, Jr.
Rufus Henry Vincent
Francis Patterson Wells
Richard Osmond White
Charles Darby Yauch

## COLLEGE OF ARTS AND SCIENCES

### Bachelor of Arts

Rolfe Lyman Allen
Raphael Blechman
Helen Mary Bradley
Stuart Johnson Burbage
Margaret Murray Burdette
George Frederick Buzzard
Elizabeth Stroble Cain
*Robert Scott Cairns, Jr.
William Herbert Campbell
William Henderson Carpenter
Harry D. G. Carroll
Harry Enlow Carter
*Ernest Collins Clark
Annie Rebecca Coffey
Stewart Albert Collins
Russell Fred Daiker
Harry Edgar Dyer, Jr.
Mary Tennessee Franklin
Loring Earl Gingell
Rosalie Carr Grant
Dorothy Griffth
Herbert David Hamburger
*Frank Brown Hines, Jr.
Mary Virginia Hoffman
Jane Maynard Holst
Charlotte Warfield Hood
Charles Thomas Keenan
Emily E. Klingel
Douglas Roscoe Knox
John Harold McWilliams
Mary Elizabeth Mills
Harold Edward Naughton
Edgar Bowman Newcomer
Frederick Albert Nordenholz
Nathan Pashen
Thomas Harry Penn, Jr.
William Bernard Rafferty
Estelle Wood Remley
James Albert Roney, Jr.
Kenneth Fahnestock Rose
John Braidwood Savage, Jr.
Lewis Allen Schnebly, Jr.
Jacob Benjamin Sclar
Charles Powell Seay
Sarah Louise Short
Mildred Mari Singer
Norwood Spencer Sothoron
Bernard Albert Sugrue
Horace E. Troth, III
Orville Rol Watkins
Sidney Weinman
Frederick William White
Helen Louise Wilson
Naomi Sherman Yates

### Bachelor of Science

Milton G. Abarbanel
John Robert Adams, Jr.
Charles Peter Asimakes
Hayward Russell Baker
Clara Barenburg
Alma Blandford
Joseph Adrian Butt
D. Delmas Caples
Donald Whitehead Chappell
Stuart Gray Coughlan
Richard Henry Dement, Jr.
Elizabeth Virginia Ehle

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*Degrees conferred October, 1933.

Emanuel Simon Ellison
*John Edward Fissel, Jr.
Herbert Goffin
William Appler Horne
Frank L. Howard
Wayne Dale Irwin
Edgar Robert Kent
Leonard Warren Levine
Charles Edward Lewis
Myra Elizabeth Lewis
Rhoda Lewton
Louis Littman
William Broughton Long, Jr.
Frank Vincent Manieri
Otto George Matheke, Jr.
Kathryn Margaret Matzen
Milton J. Meyer
Donald Arthur Murray
*Salvadore Dante Pentecoste
Lawrence Joseph Powers
Leo Rosenberg
Isabelle S. Seipt
Abraham Shapiro
Samuel Leonard Silber
Stanley Kazimier Skrzypkowski
Mannie Stapen
Bernhardt Joseph Statman
Lois M. Steinwedel
Sydney Suwalsky
Clifton Eugene Swift
Julius M. Waghelstein
Henry Wolf Weiss
Llewellyn Hopkins Welsh

---

*Degrees conferred October, 1933.

## SCHOOL OF DENTISTRY

### Doctor of Dental Surgery

George Harry Aumock
Myron Spessard Baker
Joseph Calton Biddix, Jr.
Lawrence William Bimestefer
William Francis Blazis
Theodore Bloom
Hyman Blumenthal
Douglas Arthur Browning
Donald Burns
Charles Elson Burroughs
Kenneth Lee Butt
Sylvan Caplan
Alfred Embrey Carhart
Lawrence Joseph Devine
Leo Lloyd Diamond
Anthony John Diani
*Ernesto Davila Diaz
Joseph Donovan
Percy Feinstein
Norman Lawrence Fisch
Raymond William Gillespie
*Abraham Glick
Philip Gorenberg
Meyer Gotthelf
John Pendleton Grove
Alfred Ernest Hamer
Andrew John Hanlon
Charles Earle Heaton
Allen Heefner
Gertrude Chun Yen Huang
William Andrew Imbach, Jr.
James C. Johnson, Jr.
Arthur Josephson
William Robert Joule
George M. Kurtz
Walter Howard Kwiecien
William Milton Levine
Bernard Lilien
Nicholas Liloia
James Maisel
Rosario Pompei Marchesani
Ernest Lee Martin, Jr.
Joseph Martini
Herbert Sydney Maytin
Peter Anthony McLean (Chai Lu)
Robert Rettie McLean
Meyer Mimeles
Harold Edward Mullins

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*Degrees conferred after June, 1934.

Herbert Paul Newman
Lester Bernard Older
Aaron Pargot
Joseph Francis Pichacolas
Arthur Raeder
Alexander Liles Richardson
Edmund Percy Roberts
Frederick Logan Robinson
Samuel Rockoff
Victor Michael Romano
Jean Davis Ross
Oneal Franklin Russell
Joseph Aloysius Russo
Christian Frank Sabatino
Samuel Samet
William Schunick
James Francis Shanahan
Max Shenkman
Milton Louis Taubkin
Howard Greenwood Taylor, Jr.
Preston Reeves Taylor
Marvin Richard Thomas
Lester Wilson Thompson
Abraham Harry Timinsky
Jesse Trager
Levon Charles Turnamian
Frederick Arnold Turner
Samuel John Weisbrod
Theodore Lean Wycall
Abraham Yablon
Jack Yerich

## COLLEGE OF EDUCATION

### Bachelor or Arts

Beulah Mae Barinott
Lois May Belfield
Elizabeth Linn Bennett
Rebecca Mary Boyd
Earl F. Brain
*Elizabeth Virginia Cranford
*Elmer Paul Curtin
Clara Matilda Dixon
Haines B. Felter
*Catherine Freimann
Thomas S. Gwynn, Jr.
Elmer Gordon Hammond
Lawrence Ambrose Haslbeck
Dorothy Lillian Hopkins
Blanche Leora Jenkins
Leah Lenore Leaf
A. Elizabeth Leffel
William Francis Mansfield
Mora Lillian Plager
Louise Talitha Saylor
Marinda Robertson Settle
Harry P. Sigelman
William Wolf

### Bachelor of Science

*Harold Leslie Alderton
Mary Emma Archer
Mildred Elsie Bishop
Catherine Elizabeth Dennis
David Edward Derr
Guy Ordean Downs
A. Elizabeth Easter
Angela Mae Feiser
*Ora Henning King
Grace Irene Knox
Ida Josephine Knox
*Henry Franklin Lehr
Olga Christina Lofgren
Mildred Frances Neill
Gertrude Elizabeth Nicholls
*Mary Elizabeth Owen
Howard Burton Shipley
Margaret Louise Smith
Ethel Snyder
Mary T. Solomon
Robert Lee Vincent
J. Edward Walter, Jr.
Everett C. Weitzell

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*Degrees conferred October, 1933.

### Bachelor of Science

### Industrial Education

Samuel Acree
Nicholas DeCesare
William Arthur Filler
Ramon D. Gipe
Jeanette Wiley Griffith
Emanuel Benjamin Haffner
G. Vernon Hanna
DeWilton Warfield Haslup
George Washington Hoffacker
John Jacob Horn
Samuel Louis Krotee
William E. Lehr
Albert Gibson Packard

### Teachers' Diplomas

*Harold Leslie Alderton
Mary Emma Archer
Beulah Mae Barinott
Lois May Belfield
Elizabeth Linn Bennett
Mildred Elsie Bishop
Margaret Murray Burdette
John R. M. Burger
Garnet Edward Davis
Catherine Elizabeth Dennis
David Edward Derr
Clara Matilda Dixon
Guy Ordean Downs
A. Elizabeth Easter
Angela Mae Feiser
Haines B. Felter
Mary Tennessee Franklin
Rosalie Carr Grant
Lawrence Ambrose Haslbeck
Blanche Leora Jenkins
Edward Marion Kenley
*Ora Henning King
Grace Irene Knox
Ida Josephine Knox
Leah Lenore Leaf
A. Elizabeth Leffel
*Henry Franklin Lehr
Olga Christina Lofgren
Mildred Evelyn Lutes
Helen Elizabeth McFerran
Mary Elizabeth Mills
Elsa Moody
Mildred Frances Neill
Gertrude Elizabeth Nicholls
Mary Margaret Nutter
Elise Virginia Oberlin
Eloise Anne Palmer
Nathan Pashen
Mora Lillian Plager
David George Price
A. Louise Pusey
Estelle Wood Remley
Erna Marta Riedel
Catharine Roe
Louise Talitha Saylor
Harry P. Sigelman
Margaret Louise Smith
Ethel Snyder
Mary T. Solomon
Dorothy Helen Storrs
Minna Elaine Strasburger
Robert Lee Vincent
J. Edward Walter, Jr.
Everett C. Weitzell
Helen Louise Wilson
William Wolf

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*Awarded October, 1933.

### Certificates in Industrial Education

George Christian Diehl, Jr.
Ramon D. Gipe
Charles Daniel Hild

## COLLEGE OF ENGINEERING

### Civil Engineer

John Kay Daly
William Irvine Russell
James Nicholas Wallace

### Electrical Engineer

William Hartge Fifer
Carroll Staley James

### Mechanical Engineer

William Craycroft Schofield

### BACHELOR OF SCIENCE

James Emil Aldridge
Warren D. Anderson
Richard W. Baldwin
Edward R. Bartoo
Charles Hollyday Berry
Robert Preston Biglow
Joseph Anton Bogan
William Bettis Boger
Jay Paul Bowker
Perez Hathaway Collins
Joseph Thomas Cook
Frederick Howe Cutting
Douglas P. Devendorf
John Thomas Dressel
Theodore Carl Edwards
Donald William Eyler
Jacob Friedman
Arthur Preston Gambrill, Jr.
Charles W. Haas, Jr.
Robert Taggart Haas
Harold Beaupain Houston
William Rude Jackson
Abraham Walter Jacobson
Everette Rufus Jones
Carroll Patuxent Kakel, Jr.
Bun Po Kang
E. Dorrance Kelly
Harry Trumbull Kelly
David Kreider
Everett Stanton Lank
Roland Augustus Linger
*William Henry Linkins, Jr.
Gordon Hall Livingston
Stanley Clark Lore
Luis Carlos Martelo Velez
George Melvin Miller
William Frederick Neale, Jr.
Nicholas George Nides
George Wesley Norris, Jr.
Charles W. Ockershausen, Jr.
Carl Frederick Raab
George Orr Ralston
William Horace Ross, Jr.
John Reder Shipman
Robert Wilcox Sonen
Joseph William Steiner
John Ray Stottlemyer
John Wallace Talcott
Albert C. Tayman
Howard Caho Turner
Arthur van Reuth
Thomas Winfield Wilson
Charles Monroe Yager

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*Degree conferred October, 1933.

## COLLEGE OF HOME ECONOMICS

### Bachelor of Science

Loretta Clara Arrow
Erna Mae Behrend
Doris Roberta Brigham
Charlotte Emily Farnham
Esther May Fritch
Gertrude Elnora Gilbertson
Ethel Dashiell Holliday
Elga G. Jarboe

Mildred Evelyn Lutes
Helen Elizabeth McFerran
Amy Mister
Elsa Moody
Mary Margaret Nutter
Elise Virginia Oberlin
Eloise Anne Palmer
A. Louise Pusey
Emily Louise Reinohl
Erna Marta Riedel
Catharine Roe
Lelia Ellis Smith
Dorothy Helen Storrs
Minna Elaine Strasburger
Gretchen Charline Van Slyke
*Elsie Pancoast Wasson

---

*Degree conferred October, 1933.

## SCHOOL OF LAW

### Bachelor of Law

Charles Favour Abbott
Lester Allen Ahroon
Norbert John Aidt
Richard Tilghman Brice, III
Catherine Rowe Councill
Francis Selden Crane
Aquin Paul Feeney
Albert Goldstein
Alexander Gordon, III
John Henry Hampton
Edwin Harlan
Joseph Harlan
Calvin Harrington, Jr.
Stanford Ivan Hoff
Thomas Alexander Hughes
Walter Mitchell Jenifer
Charles Henry Knapp, Jr.
Richard Black Leonard
Lester Earl Mallonee
*Joseph Rieman McIntosh
Jack Lloyd Medwedeff
Gerald Monsman
Harry Kelso Needle
Charles Oliphant
Joseph Stanislaus Patro
Frank Furnival Peard
Noah Ames Pennewell
Layman J. Redden
Williard Isadore Silverberg
Carroll LeRoy Simmonds
Robert Frank Skutch, Jr.
Philip Boniface Smith
Anselm Sodaro
Lewis Edward Stengel
John Nuelsen Thaiss
Charles Watkins Williams
Samuel Hood Willis
James Alfred Wise
Samuel Hastings Wrightson

---

*Degree conferred since June, 1934.

### Certificate of Proficiency

Mary Clare Maccubbin Green
Robert Warren Knadler
Austin Emerson Penn

## SCHOOL OF MEDICINE

### Doctor of Medicine

Leonard Jerome Abramovitz
Thurston Ray Adams
Henry Harrison Austraw
Ira Eugene Bayer, Jr.
George Schwing Bayley
Stanley Harry Berenstein
Louis Vardee Blum
David Franklin Brodey
George Edward Burgtorf, Jr.
Edgar Thrall Campbell
D. Delmas Caples
Paul Elliott Carliner

Stephen Paul Coates
Lawrence Jack Cohen
Jules Cooper
Joseph Robert Dietz
Samuel Diener
George Edward Dorman
Regis Fallon Downey
Robert Hering Dreher
John Charles Dunbar
John Edward Echols
Robert Wilbur Farr
William Lumsden Fearing
Leon Henry Feldman
Joseph Finegold
Jason Howard Gaskel
Jerome Gelb
Sidney Gelman
Abram Goldman
Herbert Goldstone
Charles Luther Goodhand, Jr.
Howard Goodman
Joseph Gordon
Isaac Gutman
Murray Joseph Hanigsberg
Robert Fairbank Healy
Edward Sayer Hoffman
William Henry Horan
William Lawrence Howard
Leonard Malcolm Hummel
Abraham Ben Hurwitz
Philip Asbury Insley
Nathan Janney
Joseph Victor Jerardi
Thorwald Johnson
Oscar Adolph Kafer
Edward Selig Kallins
Simon Katz
Wesley John Katz
William Knoll
Thomas Gorman Lawler
Reuben Leass
Abraham Charles Leavitt
Manuel Levin
Milton Levin
Helen Irene Maginnis
Marshall Paul Mains
Neumann Clyde Marlett
Hugh Bernard McNally
Joseph Millett
Richard Raymond Mirow
Alfred Charles Moore
Olin Cates Moulton
Maxwell Herschel Mund
Max Needleman
Raymond Francis O'Connor
Alfred Abraham Orans
Jacob Herbert Rabinowitz
William Turner Ray
William Thomas Reardon
Edward Leon Roberson
Morris Rosen
Charles Morton Rosenthal
*Nathan Rudo
Milton Samuel Sacks
James Ghiselin Sasscer
Emanuel Milton Satulsky
Daniel James Schwartz
Theodore Allison Schwartz
Joseph Arthur Sedlacek
Richard John Stephen Sekerak
Benjamin Israel Siegel
Milton Siegel
William Benjamin Smith
John Newcomer Snyder
Bernard Walter Sollod
William Boyer Soltz
Dorothy Gertrude Sproul
Milton Robert Stein
Wilson Paschall Stephens
Clyde Malverne Stutzman, Jr.
Samuel Jacob Sugar
Harold Lawrence Sutton
Andrew DuVal Taylor
Irving Terman
Landon Timberlake
Isadore Tuerk
Samuel Udkow
Richard Wagner
Harry Warshawsky
Earle Maurice Wilder
William David Wolfe
Charles Zurawski

---

*Degree conferred since June, 1934.

## SCHOOL OF NURSING

### Graduate in Nursing

Alma Mae Carroll
Ada Lythe Conklin
Pauline Jackson Deans
Vera Pearl Dobbins
Elizabeth Ann Doll
Bernice May Dutterer
Margaret Anne Gosnell
Gertrude Xenia Gregorius
Louise Amalie Gustafson
Marguerite Moler Hoffmaster
Hettie Elizabeth Koontz
Myra Elizabeth Lewis
Kathryn Margaret Matzen
Elizabeth Maie Nixon
Catherine Augusta O'Neil
Louise Martin Paul
Mildred Elizabeth Rice
Elizabeth Laura Rohde
June Keene Roth
Isabelle Seipt
Wilda Louise Snyder
Lois Marguerite Steinwedel
Gertrude Viola Tanttari
Esther Eleanor Uber
Willie Hollace Warner
Ethel Elizabeth Weller
Hazel Martha Wright

## SCHOOL OF PHARMACY

### Graduate in Pharmacy

Solon Lee Anderson
Henry John August
Leon J. Bercovitz
Abraham Samuel Berman
Louis Blitz
William Henry Borcherding
Milton J. Brownstein
Ralph Stallings Chenowith
Lillian Chin
Joseph Charles Ciurca
Andrew Joseph Coakley
*Bernard Carlton Cohen
Martin Smith Cohen
Morris Cohen
Samuel Cohen
Abe Danoff
Arnold Louis Dickman
William Anthony Dodd
Max Richard Dubin
Arnold Herman Eichert
Louis Eisenberg
Isadore Feinstein
Francis Thomas Fink
Ellwood Finkelstein
Samuel Louis Fox
Milton Adolph Friedman
Harold Kaufman Goldman
Sylvan Chauncey Goodman
Hymen Goteiner
Frank James Grau
Benjamin Bernard Grossman
Michael Francis Grzeczka
William Lehman Guyton
John Henry Haase
Bernard Edward Hackett
David Jacob Haransky
Clifford Allen Hare, Jr.
Irving Joseph Harmatz
William George Healey, Jr.
*Isadore Horwitz
Francis Joseph Januszeski
Elizabeth Veronica Jeppi
Ely Sidney Katz
Gabriel Elliott Katz
Isaac Katzoff
Catharine Evans Kirk
Frank Milton Kolker
Louis William Lang
Frederick William Lasowsky
Blanche Leites

---

*Degrees conferred after June, 1934.

Julius Victor Levenson
Morris Lindenbaum
Nathan Isaic Liss
John Loftus
*William Randolph Lumpkin
Joseph Lutzky
Anthony Joseph Maggio
Mary Anna Mandrow
Max Marcus
Edward Abraham Markin
Anthony Peter Mentis
Lucas Alphonse Michael
Philip Miller
Harry Charles Millman
Leonard Carl Molofsky
Samuel Morris
Arthur Albert Musher
Harriett Ruth Noel
Alexander John Ogrinz, Jr.
Nathan Louis Plovsky
Samuel Portney
Harry Prostic
Sewell Edward Richmond
Louis Rose
Leon Rosenberg
Harry Bernard Rosenstein
John Ferdinand Schaefer
Adam John Schammel
William Hillel Scheinker
Alvin Schwartz
Edward Schwartz
William Herdman Schwatka, Jr.
Charles Vincent Sevcik
Nathaniel Sharp
Robert Clay Sheppard
Irvin Shure
Walter John Skruch
Melvin Joseph Sollod
Sylvan J. Sollod
Dorothy Stain
John Walter Stark
Morris William Steinberg
Jerome Abraham Stiffman
Adam George Swiss
Leon Joseph Taylor
John William Tillery
Alexander Tucker
John Peter Urlock, Jr.
*Michael James Ward
Samuel Ellis Warshaw
Harry Lee Weisman, Jr.
Kennard Levinson Yaffe

### Bachelor of Science in Pharmacy

Edward James Alessi
*Leo Michael Czekaj
Michael Joseph Dausch
Theodore Thomas Dittrich
Joseph Drozd
Melvin F. W. Dunker
Lester Mitchel Fox
Louis Calvin Gareis
Jaye Jacob Grollman
J. Walter Landsberg
Benjamin Bernard Moses
Joseph Robert Myerovitz
Samuel Nusinow
William Andrew Parr
Bernard John Preston, Jr.
William Rotkovitz
Lawrence Joseph Shimanek
Joseph Louis Stecher
Louis Vogel, Jr.
Daniel George Wehner
Jacob Joseph Weinstein

## HONORS, MEDALS, AND PRIZES 1933-1934

### Elected Members of Phi Kappa Phi, Honorary Fraternity

Rolfe Lyman Allen
Warren D. Anderson
Cecil Ravenscroft Ball
Helen Mary Bradley
Margaret Murray Burdette
Robert Flint Chandler, Jr.

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*Degrees conferred after June, 1934.

STEWART ALBERT COLLINS
GARNET EDWARD DAVIS
DAVID EDWARD DERR
JOHN THOMAS DRESSEL
HELENA J. HAINES
CHARLOTTE WARFIELD HOOD
ABRAHAM WALTER JACOBSON
DAVID KREIDER
LEAH LENORE LEAF
MARY ELIZABETH MILLS
GERTRUDE ELIZABETH NICHOLLS
EMILY LOUISE REINOHL
ERNA MARTA RIEDEL
WILLIAM GORDON ROSE
WILLIAM HORACE ROSS, JR.
RALPH WALKER RUBLE
LOUISE TALITHA SAYLOR
JOHN REDER SHIPMAN
SARAH LOUISE SHORT
ETHEL SNYDER
NEIL WADE STUART

### Elected Members of Sigma Xi, Honorary Scientific Fraternity

RUSSELL GUY BROWN
ROBERT FLINT CHANDLER, JR.
PAUL LEWIS FISHER
HARRY LEE GREENBERG
ROBERT WARNER HENDRICKS
JOHN WILLIAM HEUBERGER
MILLARD JACOB HORN
ROBERT PARKER JACOBSEN
GORDON MABEY KLINE
CURTIS LAKEMAN NEWCOMBE
WILLIAM GORDON ROSE
EMANUEL VERITUS SHULMAN
EUGENE A. SIEGLER
FLORENCE TUCKER SIMONDS
FRANK J. SLAMA
NEIL WADE STUART

### Citizenship Medal, offered by Mr. H. C. Byrd, Class of 1908

NORWOOD SPENCER SOTHORON

### Citizenship Prize, offered by Mrs. Albert F. Woods

CLARA MATILDA DIXON

### Athletic Medal, offered by the Class of 1908

NORWOOD SPENCER SOTHORON

### Maryland Ring, offered by Charles L. Linhardt

EARL GLEN WIDMYER

### Goddard Medal, offered by Mrs. Annie K. Goddard James

RICHARD OSMOND WHITE

### Sigma Phi Sigma Freshman Medal

JESSE DALE PATTERSON

### Delta Delta Delta Sorority Medal

CLARIBEL GERTRUDE PIERSON

### Dinah Berman Memorial Medal, offered by Benjamin Berman

GEORGE WILLARD BIXBY

### Women's Senior Honor Society Cup

HELEN MARY BRADLEY

### The Diamondback Medals

WILLIAM C. H. NEEDHAM
E. DORRANCE KELLY
CHESTER ROGERS VENEMANN
JOSEPH MARSHALL MATHIAS
ROSALIE CARR GRANT
ERNEST ELMER WOODEN, JR.

### The Reveille Medals

RAYMOND J. GOODHART
FREDERICK WILLIAM WHITE
MARTHA ATKINSON CANNON

### The Old Line Medals

HERBERT MONROE ALLISON
LOIS MAY BELFIELD
EARL LESTER EDWARDS
LOUIS LITTMAN

### "Governor's Drill Cup," offered by His Excellency, Honorable Albert C. Ritchie, Governor of Maryland

COMPANY G, COMMANDED BY CADET CAPTAIN EDWIN HUBBARD LAWTON

### Military Faculty Award

CADET LIEUTENANT COLONEL HOWARD CAHO TURNER

### Military Department Medals

CADET MAJOR ROBERT GLENN SNYDER
CADET MAJOR HARRY TRUMBULL KELLY

### Military Medal, offered by the Class of 1899

CADET RAYMOND DAVIS, JR.

### Washington Chapter Alumni Military Cup

FIRST PLATOON, COMPANY A, COMMANDED BY
CADET FIRST LIEUTENANT EDWARD WILSON AULD, JR.

### University of Maryland Prize (Saber), to the Best Company Commander

CADET CAPTAIN EDWIN HUBBARD LAWTON

### The Scabbard and Blade Saber, to Commander of Winning Platoon

CADET FIRST LIEUTENANT EDWARD WILSON AULD, JR.

### Military Department Freshman Medals

CADET FRANCIS JOSEPH JOHNSON
CADET RAYMOND DAVIS, JR.

### Gold Medals (Military Band)

Cadet John Henry Davis
Cadet Everett Hollister Northrop

### Squad Competition Gold Medals

Cadet Corporal John Semple Shinn
Cadet Earl Edward Batten
Cadet William Montgomery Reading, Jr.
Cadet Warren Rhys Evans
Cadet Charles Harvey Cooke
Cadet Jack Thomas Combs
Cadet Jack Wendell Phillips
Cadet John Samuel Thiemeyer, Jr.

### Inter-Collegiate Third Corps Area Silver Medal

Cadet Corporal Arnon Lewis Mehring, Jr.

### Inter-Collegiate Third Corps Area Rifle Bronze Medal

Cadet First Lieutenant Gordon Hall Livingston

### Military Department Gold Medal, University of Maryland Rifle Team

Cadet Corporal Arnon Lewis Mehring, Jr.

### Military Department Gold Medal, University of Maryland Freshman Rifle Team

Cadet Raymond Davis, Jr.

## WAR DEPARTMENT AWARDS OF COMMISSIONS AS SECOND LIEUTENANTS

### The Infantry Reserve Corps

Edward Wilson Auld, Jr.
William Henderson Carpenter
Harry D. G. Carroll
Harry Enlow Carter
Spencer Bliss Chase
Frederick Howe Cutting
Earl Lester Edwards
Benjamin Harrison Evans, Jr.
Peter Frost Hilder
Harold Beaupain Houston
Harry Trumbull Kelly
Edwin Hubbard Lawton
Gordon Hall Livingston
Charles William Ockershausen, Jr.
Edward Francis Quinn, Jr.
Robert Wilcox Sonen
Robert Glenn Snyder
Howard Caho Turner
Thomas Holliday Webster, III
Richard Osmond White

## HONORABLE MENTION

### College of Agriculture

First Honors—Garnet Edward Davis, Ralph Walker Ruble, Francis Patterson Wells.

Second Honors—Paul Joseph Bush, Robert Glenn Snyder, Cornelius Barrett Shear.

### College of Arts and Sciences

First Honors—Helen Mary Bradley, Rolfe Lyman Allen, Bernhardt Joseph Statman, Sydney Suwalsky, Margaret Murray Burdette, Charlotte Warfield Hood, Sarah Louise Short, Stewart Albert Collins, Milton J. Meyer, Mary Elizabeth Mills.

Second Honors—William Bernard Rafferty, Wayne Dale Irwin, Mary Tennessee Franklin, Leonard Warren Levine, Myra Elizabeth Lewis, Abraham Shapiro, William Appler Horne, Harry Edgar Dyer, Jr., Otto George Matheke, Jr.

### College of Education

First Honors—David Edward Derr, Gertrude Elizabeth Nicholls, Leah Lenore Leaf, Louise Talitha Saylor.

Second Honors—Ethel Snyder, Lois May Belfield, Mildred Elsie Bishop, Clara Matilda Dixon.

### College of Engineering

First Honors—Abraham Walter Jacobson, John Reder Shipman, John Thomas Dressel, David Kreider, Warren D. Anderson, William Horace Ross, Jr.

Second Honors—Bun Po Kang, Joseph William Steiner, Jay Paul Bowker, Charles W. Ockershausen, Jr., George Melvin Miller.

### College of Home Economics

First Honors—Emily Louise Reinohl, Erna Marta Riedel.

Second Honors—Helen Elizabeth McFerran, Doris Roberta Brigham, Elise Virginia Oberlin.

### School of Dentistry

University Gold Medal for Scholarship

Douglas Arthur Browning

Certificates of Honor

Myron Spessard Baker
Jean Davis Ross
Alfred Embrey Carhart
James C. Johnson, Jr.
Joseph Martini

### School of Law

Prize of $100.00 for the Highest Average Grade for the Entire Course, Day School,

Lester Allen Ahroon

Prize of $100.00 for the Highest Average Grade for the Entire Course, Evening School,

Gerald Monsman

Alumni Prize of $50.00 for Best Argument in Honor Case in the Practice Court,

Anselm Sodaro

George O. Blome Prizes to Representatives on Honor Case in the Practice Court,

Lester Allen Ahroon
Gerald Monsman
Anselm Sodaro
Charles Watkins Williams

### School of Medicine

University Prize—Gold Medal

Max Needleman

Certificates of Honor

Jacob Herbert Rabinowitz
Paul Elliott Carliner
Richard Raymond Mirow
Milton Samuel Sacks
Jules Cooper

The Dr. A. Bradley Gaither Memorial Prize of $25.00 for the Best Work in Genito-Urinary Surgery During the Senior Year,

Charles Zurawski

### School of Nursing

The Janet Hale Memorial Scholarship Given by the University of Maryland Nurses' Alumnae Association, to Pursue a Course in Administration, Supervisory, or Public Health Work at Teachers College, Columbia University to the Student Having the Highest Record in Scholarship,

Myra Elizabeth Lewis

The Elizabeth Collins Lee Prize of $50.00 to the Student Having the Second Highest Average in Scholarship,

Lois Marguerite Steinwedel

The Mrs. John L. Whitehurst Prize of $25.00 for the Highest Average in Executive Ability,

Lois Marguerite Steinwedel

The Edwin and Leander M. Zimmerman Prize of $50.00 for Practical Nursing and for Displaying the Greatest Interest and Sympathy for the Patients,

Kathryn Margaret Matzen

The University of Maryland Nurses' Alumnae Association Pin, and Membership in the Association for Practical Nursing and Executive Ability,

Catherine Augusta O'Neil

### School of Pharmacy

Gold Medal for General Excellence,

Robert Clay Sheppard

The William Simon Memorial Prize for Proficiency in Practical Chemistry,

Leonard Carl Molofsky

The Simon Solomon Prize ($50.00),

William Herdman Schwatka, Jr.

Certificates of Honor

William Herdman Schwatka, Jr.
Isadore Feinstein
Morris Lindenbaum

## REGIMENTAL ORGANIZATION, R. O. T. C. Unit, 1934-1935

J. FAIRFAX WALTERS, Lieutenant Colonel, Commanding
TRACY C. COLEMAN, Captain, Regimental Adjutant

### FIRST BATTALION

EARL G. WIDMYER, Major, Commanding
CHARLES R. BOUCHER, First Lieutenant, Adjutant

| COMPANY "A" | COMPANY "B" | COMPANY "C" |
|---|---|---|
| | Captains | |
| Harold J. Burns, Commanding | Talbert A. Smith, Commanding | Robert A. Dunnigan, Commanding |
| | First Lieutenants | |
| Charles G. Grosh<br>Frank P. Duggan | John A. Ruehle<br>Peter J. Valaer | William A. Harmon |

### SECOND BATTALION

THOMAS P. CORWIN, Major, Commanding
ROBERT H. ARCHER, First Lieutenant, Adjutant

| COMPANY "D" | COMPANY "E" | COMPANY "F" |
|---|---|---|
| | Captains | |
| Charles H. Ludwig, Commanding | Thaddeus R. Dulin Commanding | Charles D. Wantz, Commanding |
| | First Lieutenants | |
| Albert W. Rosenberger<br>G. Graham Dennis | Joseph V. Crecca | John W. Webster |

### THIRD BATTALION

FREDERICK S. McCAW, Major, Commanding
RICHARD N. NELSON, First Lieutenant, Adjutant

| COMPANY "G" | COMPANY "H" | COMPANY "I" |
|---|---|---|
| | Captains | |
| Walter N. Talkes, Commanding | Ray F. Chapman, Commanding | Joseph H. Pyles, Commanding |
| | First Lieutenants | |
| Pelham A. Walton<br>Philip L. Mossburg | Ralph W. Ruffner | Ralph C. Fisher<br>Raymond J. Goodhart |

### CADET BAND

JULIUS L. GOLDMAN, Captain, Commanding

Band under the direction of Master Sergeant Otto Siebeneichen, Retired, formerly with the Army Band, Washington Barracks, Washington, D. C.

## NON-COMMISSIONED OFFICERS

### FIRST BATTALION

ARTHUR R. BUDDINGTON, Sergeant Major

| COMPANY "A" | COMPANY "B" | COMPANY "C" |
|---|---|---|
| | First Sergeants | |
| H. Clifton Byrd | Albert W. Webb | Andrew B. Beveridge |
| | Sergeants | |
| J. Herbert Brill<br>Lewis T. Gibbs<br>Jack W. Phillips<br>M. Courtney Lankford<br>Robert W. Thomas<br>Alton L. Sanford | J. Brady Smith<br>Paul L. King<br>George E. Gilbert<br>Joseph W. Sisson<br>William R. Schneider<br>Milo W. Sonen | Sidney P. McFerrin<br>Noel O. Castle<br>Edward H. D. Gibbs<br>John M. Firmin<br>Louis F. Flagg<br>*Louis A. Ennis |

### SECOND BATTALION

LOUIS PARK, Sergeant Major

| COMPANY "D" | COMPANY "E" | COMPANY "F" |
|---|---|---|
| | First Sergeants | |
| Henry G. Knoche | William N. Garrott | Warren R. Evans |
| | Sergeants | |
| Alton E. Rabbitt<br>Leonard Smith<br>Corbin C. Cogswell<br>William A. Pates<br>James F. Zimmerman | George C. Hart<br>Bernard E. Buscher<br>Raymond F. Bartelmes<br>Harmon L. Spencer<br>Bennard F. Bruns<br>*Edward M. Minion | James F. Hart<br>Hugh H. Saum<br>Harry J. Lynn<br>Charles L. Callahan<br>Samuel A. Leishear<br>*W. Robert Beall |

### THIRD BATTALION

GEORGE E. HARRINGTON, Sergeant Major

| COMPANY "G" | COMPANY "H" | COMPANY "I" |
|---|---|---|
| | First Sergeants | |
| John F. Christhilf | Robert W. Slye | W. Brooks Bradley |
| | Sergeants | |
| William A. Hart<br>Austin J. Hall<br>Joseph V. Norris<br>Kenneth R. Mason<br>Henry C. Strobel<br>Theodore H. Erbe | Howard F. Allard<br>Wright G. Calder<br>Robert S. Booth<br>Victor G. Willis<br>J. Hope Morgan<br>*Ernest R. Eaton | Francis D. Shoemaker<br>Ellis P. Root<br>George H. Sachs<br>B. James Dayton<br>Richard E. Hardie |

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*Acting Platoon Commander

# Register of Students, 1934-1935

## COLLEGE OF AGRICULTURE

### SENIOR CLASS

Ashton, Donald F., Baltimore
Bailey, John W., Aberdeen
Bower, Laurence R., Mt. Rainier
Brown, James W., Washington, D. C.
Bunch, Edward L., Washington, D. C.
Caskey, Kenneth L., Takoma Park
Chilcoat, William H., Sparks
Clark, Charles E., Chevy Chase
Clark, Charles H., Forest Hill
Dawson, Wilson F., Washington, D. C.
Downey, Fred C., Williamsport
Fales, John H., Silver Spring
Fisher, Ralph C., Hyattsville
Fullerton, Merrill B., Bethesda.
Gross, Clifford L., White Hall.
Harns, Henry G., Washington, D. C.
Hastings, Warren W., Lanham
Hobbs, Truman A., Glen Echo
Hull, John L., Union Bridge
Jeffers, Walter F., Berwyn
Jones, Omar J., Sr., Princess Anne
Kidwell, Arthur S., Baltimore
Kitwell, Jeanette B., Washington, D. C.
Lennartson, R. W., Washington, D. C.
Lewis, Alfred W., Chevy Chase
Lung, Paul H., Smithsburg
Marshall, Cecil A., Princess Anne
Merryman, Nicholas B., Cockeysville
Noble, Wilmer S., Jr., Federalsburg
Pfeiffer, Norman B., Laurel
Physioc, Stephen H., Baltimore
Poffenberger, Paul R., Hagerstown
Presley, John T., Lanham
Silkman, John A., Baltimore
Slade, Hutton D., Baltimore
Speck, Marvin L., Middletown
Staley, Joseph L., Knoxville
Stoner, Daniel B., Westminster
Thomas, Ramsay B., Towson
Toole, Elizabeth L., Lanham
Tydings, Warren E., Davidsonville
Webster, John W., Pylesville
Wenzel, Marie E., Laurel
Williams, Donald B., Waterbury

### JUNIOR CLASS

Allard, Howard F., Washington, D. C.
Armiger, Walter H., Beltsville
Baden, John A., Landover
Bartlett, Fitz J., Mt. Rainier
Boarman, William F., Hyattsville
Buddington, Arthur R., College Park
Buscher, Bernard E., Washington, D. C.
Carter, Edward P., Washington, D. C.
Clark, Harry W., Forest Hill
Eiker, Walter M., Washington, D. C.
Garrott, William, Knoxville
Greenwood, Grace L., Brentwood
Hamilton, Wayne B., Oakland
Harrington, George E., Washington, D. C.
Henderson, William H., Woodbine
Hoshall, Thomas J., Parkton
Huntington, Elizabeth L., Upper Darby, Pa.
Imphong, Paul H., Hancock
James, William S., Hancock
King, Addison W., Baltimore
Law, Francis E., Washington, D. C.
Maccubbin, H. Pearce, Baltimore
Mayer, Elmer L., Washington, D. C.
Mehring, Arnon L., Hyattsville
Miller, Oscar J., Washington, D. C.
Mullinix, Paul E., Woodbine
Nelson, Richard H., Washington, D. C.
Ortenzio, Louis F., Harrisburg, Pa.
Pelczar, Michael J., Jr., Stemmers Run
Puncochar, Joseph F., Curtis Bay
Rabbitt, Alton E., College Heights
Radebaugh, Garnett D., Forest Hill
Ramsburg, Herman F., Frederick
Sisson, Joseph W., Washington, D. C.
Sockrider, Elsie M., Washington, D. C.
Stabler, Albert, Jr., Spencerville
Stevens, C. Grayson, New Market
Vawter, James H., Laurel
Willis, Victor G., Elkton
Wolk, Jack, Washington, D. C.
Warfield, William C., Cumberland
Weber, J. Logan, Oakland

### SOPHOMORE CLASS

Bialek, Lillian, Washington, D. C.
Bowers, Lloyd C., Oakland
Bowie, Forrest D., Bennings, D. C. (Md.)
Bowie, Oden, Mitchellville
Butler, Henry E., Worton
Cissel, Chester M., Ellicott City
Crump, Robert, Frostburg
Daly, Edmond T., New Brighton, N. Y.

Gormley, John J., Chevy Chase
Gottwalls, Abram Z., Goldsboro
Griffith, Wiley G., Gaithersburg
Grodjesk, Bernice, Jersey City, N. J.
Hill, Rodney T., Laurel
Johnson, Daniel B., Riverdale
Kaltenbach, George G., Overlea
Leighty, Raymond V., Clarendon, Va.
Love, Robert L., Silver Spring
Lovell, John C., New Windsor
Marche, William T., Hyattsville
McFadden, Burton M., Hagerstown
Nellis, David C., Takoma Park
Nolte, William A., Washington, D. C.
O'Hanlon, Ardle, P., Washington, D. C.
Pettit, Alfred B., Hyattsville
Piquett, Price G., Catonsville
Price, James W., Jr., Catonsville
Rodier, John M., Lanham
Schulz, Ray, Washington, D. C.
Stevenson, Elmer C., Takoma Park
Streett, Robert A., Streett
Thomas, Virginia E., Newark, Del.
Thornton, Eugene, Jr., Chestertown
Wood, Edward P., Catonsville
Woolard, Robert N., Washington, D. C.
Wagaman, Kenneth R., Sabillasville
Webb, Clay M., Vienna
Welch, Aaron W., Galena
White, Horace R., Annapolis

### FRESHMAN CLASS

Angell, Edward C., Towson
Baker, Alva S., Catonsville
Bellman, Robert E., Mt. Rainier
Bishop, James W., Laurel, Del.
Buchholz, James H., Catonsville
Burton, William E., Relay
Burton, William G., Brentwood
Caplan, Raphael F., Freeland
Carter, Henry H., Rockville
Carver, Ann E., Perryville
Connelly, John V., Riverdale
Converse, Henry T., Jr., Beltsville
D'Ambrogio, Horace S., Riverside, Conn.
DeCecco, James N., Vienna
Dove, Arthur J., Brentwood
Downey, Charles L., Williamsport
Eberle, Allan R., Edmonston
Fisher, Elwood G., Washington, D. C.
Franck, Philip B., Washington, D. C.
Gagnon, Kenneth E., Mt. Rainier
Gibbs, William E., Hyattsville
Gilbertson, Warren H., Bladensburg
Gillett, Kenneth E., Chevy Chase
Goldsmith, John S., Allen
Gordon, Thomas W., Baltimore
Guill, John H., Takoma Park
Gwynn, William R., Clinton
Hande, James E., Baltimore
Hite, Norborne A., Port Deposit
Hudgins, Charles P., Washington, D. C.
Hyslop, Charles D., Silver Spring
Jacques, Denton R., Smithsburg
Johnston, Frederick A., Takoma Park
Judy, Byron I., Parsons, W. Va.
Kuhn, Albin O., Woodbine
Lewis, Glenn W., Lantz
Lung, Ernest H., Smithsburg
McGee, Edwin D., Pocomoke City
Miller, George P., Clinton
Parsons, Robert E., Washingeon, D. C.
Phelps, William W., Upper Marlboro
Porter, George L., Oakland
Ravenburg, Ralph R., Edgewater
Remsen, Peter, Takoma Park
Riebe, Henry F., Upper Darby, Pa.
Ringler, Jay W., Easton
Ruble, E. Kyle, Poolesville
Sauerbrey, Karl A., Towson
Schmidt, Edward H., Jr., Seat Pleasant
Schutz, J. Logan, Washington, D. C.
Seabold, George W., Jr., Glyndon
Shaffer, Charles H., Jr., Washington, D. C.
Shaw, Clay W., Stewartstown, Pa.
Shepherd, Edward O., Bristol
Sisler, Fred D., Washington, D. C.
Skinner, Calvin L., Sudlersville
Snouffer, James M., Buckeystown
Snyder, Fannye D., Annapolis
Steiner, Wilmer W., Washington, D. C.
Stevens, Edgar T., New Market
Sutton, Richard S., Kennedyville
Wienecke, George H., Hyattsville
Williams, Donald H., Washington, D. C.
Yeager, Sara A., Baltimore

### UNCLASSIFIED AND PART TIME

Brendel, William P., Catonsville
Bruegal, Theodore W., Philadelphia, Pa.
Cohen, Robert S., Baltimore
Perlstein, Sam., Washington, D. C.
Petrides, George A., Washington, D. C.
Weber, Macbeth Y., Takoma Park

### WINTER SCHOOL

Attick, Arabelle L., Berwyn
Bartol, Raleigh D., Finksburg
Crone, Frances M., Jessup
Curtis, George T., Ellicott City
Darrow, Grace C., Glendale
Dryden, James H., Newark

Fogle, Frank W., Union Bridge
Frizzell, Sewell W., West Friendship
Funk, Henry W., Hagerstown
Garner, Racheal H., Westminster
Hancock, Willis T., Girdletree
Hoke, Charles D., Walkersville
Hutchison, Earl J., Cordova
Knox, Walter F., Towson

Morris, Caulder B., Berwyn
Shockley, Percy F., Snow Hill
Snodgrass, Thomas, Street
Stanley, Helen R., Silver Spring
Stauffer, George C., Walkersville
Walsh, Helen M., Rogers Heights
Yoder, Lauren A., Longgreen

## COLLEGE OF ARTS AND SCIENCES

### SENIOR CLASS

Allison, Herbert M., Washington, D. C.
Archer, Robert H., Bel Air
Arnold, Hubert K., Washington, D. C.
Ashton, John C., Washington, D. C.
Baldwin, Willis H., Havre de Grace
Beach, Paul L., Washington, D. C.
Bernstein, Harold, New York, N. Y.
Bloom, Morris, Baltimore
Blumberg, Gilbert, Baltimore
Bounds, William E., Salisbury
Bourke, John J., Washington, D. C.
Brady, William H., Aquasco
Brumbaugh, Evelyn R., Washington, D. C.
Campbell, Thomas W., Hagerstown
Cannon, Martha A., Takoma Park
Caspari, Fred W., Riva
Cheston, Harvey J., Jr., Washington, D. C.
Chiles, Edward L., Fort George G. Meade
Chumbris, Peter W., Washington, D. C.
Coe, Mayne R., Jr., Washington, D. C.
Cohn, Sanford, New York, N. Y.
Cole, Selden D., Silver Spring
Cooper, Richard W., Salisbury
Corwin, Thomas P., Washington, D. C.
Crecca, Joseph V., Baltimore
Cross, Chester B., Washington, D. C.
Crossley, George L., Washington, D. C.
Deppish, John R., Spesutia Island
Drake, Lillian, Washington, D. C.
Dubnoff, Herman, Passaic, N. J.
Duggan, Frank P., Baltimore
Dulin, Thaddeus R., Washington, D. C.
Dumville, George L., Niagara Falls, N. Y.
Edelson, David, Neptune, N. J.
Edmondson, Charles E., Cambridge
Engel, Lea K., Washington, D. C.
Farrell, Hugh G., Metuchen, N. J.
Flanders, Robert H., Washington, D. C.
Flowers, Richard H., Baltimore
Friedman, Martin A., Astoria, L. I., N. Y.
Garter, Solomon H., Brooklyn, N. Y.
Goldman, Luther C., Mt. Rainier
Graves, Robert J., Kensington
Hannigan, Kathleen R., College Park
Harris, Hillman C., Washington, D. C.
Haydon, Robert L., Hyattsville

Herman, Joseph I., Baltimore
Herring, Charles E., Jr., Riviera Beach
Hollins, Stanley M., Baltimore
Holmes, Paul E., Washington, D. C.
Horvath, G. K., Baltimore
Hubbert, Tilghman, S., Cambridge
Jones, Margaret E., Baltimore
Jones, William R., Ridgely
Jones, Woodrow W., Cambridge
Kahn, Arthur E., Jersey City, N. J.
Kaye, Jerome H., Brooklyn, N. Y.
Keitlen, Philip, Jersey City, N. J.
King, Parke L., Germantown
Kinnamon, Howard F., Easton
Kressin, Eugene L., Washington. D. C.
Lane, James F., Goldsboro
Lanham, William B., Jr., College Park
Lasky, Saul R., Baltimore
Lee, Barbara M., Landover
Lee, Gilbert R., Washington, D. C.
Leibold, Edward P., Baltimore
Lipsitz, Max, Baltimore
Loizeaux, A. Milton, Towson
Long, Eloise G., Salisbury
Lord, Ruth, Washington, D. C.
Lyddane, Eugene T., College Park
Machkowsky, Edwin, Jersey City, N. J.
Mandel, Jacob, Jersey City, N. J.
Mathias, J. Marshall, Washington, D. C.
Matthews, Jason E., Jr., Washington, D. C.
McAboy, Lyman R., Washington, D. C.
Miller, Mary L., Silver Spring
Mumford, Richard D., Willards
Nelson, Lois, Washington, D. C.
Newman, E. Arthur, Jr., Baltimore
Ockershausen, Richard W., Washington, D. C.
Peck, Donald E., Damascus
Peck, Robert A., Damascus
Pike, James W., Washington, D. C.
Potts, Virginia L., Baltimore
Powell, Frances K., Washington, D. C.
Pratt, Herbert M., Queenstown
Reicher, Sol M., Baltimore
Rich, Arthur J., Brooklyn, N. Y.
Rittenhouse, Charles K., Baltimore

Robertson, James C., Jr., Baltimore
Rochberg, Sam, Passaic, N. J.
Ruehle, John A., Takoma Park
Ruppert, John A., Washington, D. C.
Salganik, Jerome C., Baltimore
Schaaf, Henry K. T., Ellicott City
Schrott, Frances A., Washington, D. C.
Shulman, Ralph A., Stamford, Conn.
Simpson, John, Chevy Chase
Small, John R., College Park
Smith, Talbert A., Washington, D. C.
Smyrnas, Peter P., Washington, D. C.
Stallings, Mary L., Washington, D. C.
Sutton, Marion P., Kennedyville
Swigert, Wesley J., Baltimore
Talkes, Walter N., Washington, D. C.
Tartikoff, George, Brooklyn, N. Y.

Thomas, Robert W., Washington, D. C.
Thompson, E. Wells, Washington, D. C.
Valaer, Peter J., Washington, D. C.
Vignau, John, Washington, D. C.
Wantz, Charles D., Hagerstown
Warhol, John, Jr., Mahwah, N. J.
Warshafsky, Herman, Washington, D. C.
Weirich, William B., Hyattsville
Weist, Bettina M., Washington, D. C.
West, Berma J., Landover
Whitacre, Esther M., Silver Spring
Wilcoxon, June E., Washington, D. C.
Williams, Ralph C., Silver Spring
Wise, Franklin B., Dover, Del.
Worthen, Mary A., Mt. Rainier
Zimmerman, Verna M., Baltimore

### JUNIOR CLASS

Aaron, James P., Jr., Baltimore
Abdalla, Fred L., Mt. Rainier
Allen, Dorothy V., Washington, D. C.
Altevogt, William J. F., Baltimore
Ambrose, Herbert D., Baltimore
Baldwin, David H., Washington, D. C.
Barnsley, June, Rockville
Beacham, Edmund G., Baltimore
Beale, William L., Washington, D. C.
Benjamin, Paul E., Baltimore
Bogley, Samuel E., Friendship Heights
Bonnet, John C., Washington, D. C.
Bowie, William B., Bennings, D. C. (Md.)
Bradley, Donald C., Chevy Chase
Bradley, W. Brooks, Baltimore
Brett, Homer, Jr., Washington, D. C.
Brill, J. Herbert, Baltimore
Brooks, Lester, Brooklyn, N. Y.
Buckingham, William O., Washington, D. C.
Burroughs, Reginald, Jr., Upper Marlboro
Byers, John G., Lonaconing
Byrd, Harry C., College Park
Callahan, Charles L., Baltimore
Carter, William A., Washington, D. C.
Cave, Edward F., Washington, D. C.
Chapin, Mildred F., Chevy Chase
Clark, John F., Baltimore
Cogswell, Charles L., Washington, D. C.
Cogswell, Corbin C., Jr., Pikesville
Cummings, Bernard A., Chevy Chase
Dantzig, George B., Hyattsville
Davidson, Mildred, Chevy Chase
DeMarco, Carmel, Washington, D. C.
DeVeau, Donald E., Chevy Chase
Dolan, Loretta M., Baltimore
Donovan, Dorothy C., Washington, D. C.
Dorsett, Frances E., Indian Head
Drape, Fred T., Baltimore

Eaton, Ernest R., Washington, D. C.
Ellis, Joseph A., Hebron
Ellis, Wayne P., Jr., Washington, D. C.
Ennis, Louis A., Long Branch, N. J.
Erbe, Theodore H., Baltimore
Evans, Ralph I., Washington, D. C.
Farson, John H., Showell
Fisher, Ethel A., Upper Marlboro
Forman, Sylvan E., Baltimore
Fowler, Charles R., Washington, D. C.
Friedman, Harold B., Silver Spring
Gammon, Nathan, Jr., Washington, D. C.
Golden, Lex B., Washington, D. C.
Goodhart, Raymond J., Washington, D. C.
Graham, William J., Jr., Washington, D. C.
Greenfield, Ray H., Takoma Park
Grier, George S., III, Milford, Del.
Grinstead, Marjorie R., Washington, D. C.
Grossfeld, Seymour S., Bronx, N. Y.
Grott, Harold, Baltimore
Handler, Isidor, Kingston, N. Y.
Hart, George C., Baltimore
Hart, James F., Jr., Baltimore
Haskin, Frederic J., Jr., Chevy Chase
Hathaway, Caleb R., Chevy Chase
Helfgott, Jack L., Mitchellville
Hester, J. Virginia, Fairhaven
Hooker, Charles B., Takoma Park
Horsey, Thomas C., Greensboro
Hutchins, Thomas M., Bowens
Hyatt, Herbert S., Damascus
Isaacson, Benjamin, Hyattsville
Jackson, Robert B., Salisbury
Johns, Malcolm L., Washington, D. C.
Jones, Marguerite E., Owings Mills
Kerr, James P., Boyd
Kesler, Katherine E., Silver Spring
Kozloski, Henry P., Mt. Carmel, Pa.

Langley, Theodore C., Washington, D. C.
Law, Charles E., Washington, D. C.
Leet, Harvey T., Chevy Chase
Leishear, Samuel A., Washington, D. C.
Leitch, W. Harvey, Friendship
Litschert, Robert G., University Park
Loeser, Richard A., Baltimore
Love, Richard H., Hyattsville
Love, Solomon, Washington, D. C.
Lung, Homer D., Smithsburg
Lynn, Harry J., Washington, D. C.
Maddox, H. Louise, Hyattsville
Mangan, Leo F., Washington, D. C.
Marche, Louise C., Hyattsville
Mason, Kenneth R., Newark
Maurer, Richard H., Washington, D. C.
May, John B., III, Washington, D. C.
McFerrin, Sidney P., Baltimore
McIntire, Mary L., Oakland
McLain, Edward J., Washington, D. C.
Medler, Herman P., Chevy Chase
Meiser, Woodrow W., Baltimore
Melchionna, Olin A., Rochelle Park, N. J.
Meloy, Samuel W., Washington, D. C.
Meyer, Alvin F., Baltimore
Miles, Dorothy H., Washington, D. C.
Miller, David, Washington, D. C.
Miller, Jean, Beltsville
Miller, Rebecca C., Beltsville
Minion, Edward M., Newark, N. J.
Mobus, Paul F., Ellerslie
Moody, Louis H., Jr., Washington, D. C.
Moreland, Miriam L., Washington, D. C.
Morgan, J. Hope, Welcome
Murray, Guy E., Washington, D. C.
Nevius, Wilford E., College Park
Norment, Nancy L., Hagerstown
Norris, Marguerite M., Chevy Chase
Oland, Charles D., Olney
Padgett, E. Anne, Baltimore
Parker, Marion E., Washington, D. C.
Penrod, Adam J., Washington, D. C.
Pierson, Claribel G., Hyattsville
Platt, Doran S., Jr., Takoma Park, D. C.
Pyle, Lawrence A., Washington, D. C.
Quirk, Anna M. L., Washington, D. C.
Quirk, Betty C., Washington, D. C.
Read, Jack D., Washington, D. C.
Reich, Morris H., Astoria, L. I., N. Y.
Reid, Robert T., Baltimore
Richter, Christian F., Jr., Baltimore
Rintoul, James L., Jr., Baltimore
Robb, John M., Cumberland
Robertson, Thomas E., Washington, D. C.
Rohr, Aileen M., Harpers Ferry, W. Va.
Rombro, Leonard, Baltimore
Ruben, Mortimer, Brooklyn, N. Y.
Ruppel, John W., Baltimore
Ruzicka, Edwin R., Baltimore
Sacks, Jerome G., Baltimore
Sanders, Charles V., McLean, Va.
Sanford, Alton L., Chevy Chase
Saum, Hugh H., Lanham
Schaffer, George H., Jr., Baltimore
Scheele, Thomas F., Washington, D. C.
Schneider, Bernard, College Park
Schneider, William R., Ellicott City
Scrivener, David S., Washington, D. C.
Sesso, George F., Washington, D. C.
Sieling, Frederick W., Annapolis Junction
Skozilas, John W., Baltimore
Small, Milton, Hempstead, N. Y.
Smith, J. Brady, Baltimore
Smith, Leonard, Washington, D. C.
Soltanoff, Walter, Montclair, N. J.
Spencer, Harman L., Washington, D. C.
Spiegel, Herbert, McKeesport, Pa.
Stanton, William A., Hyattsville
Stark, Elwood V., Aberdeen
Starr, John E., Hyattsville
Sweeney, Thomas R., Washington, D. C.
Thomason, Clarence T., Washington, D. C.
Thompson, Elizabeth, Daytona Beach, Fla.
Thorne, Clayton T., Silver Spring
Tucker, Lester W., Abingdon
Tunis, John O., Jr., Pompton Lakes, N. J.
Velenovsky, Joseph J., Baltimore
Venemann, Chester R., Riverdale
Vickers, Osbon T., Laurel
Voris, J. Calvin, Laurel
Waite, Merton T., Odenton
Waller, Bill F., Silver Spring
Wasserman, Sidney, Baltimore
Webb, Albert W., Vienna
Wells, Joan K., Washington, D. C.
Welsh, Paul E., Baltimore
Wenchel, John P., II, Washington, D. C.
Whalin, Cornelius, Hyattsville
Whalin, James T., Hyattsville
Whiteford, Charles G., Baltimore
Willard, Daniel D., Cumberland
Willey, Edward J., Washington, D. C.
Williams, William W., Washington, D. C.
Williamson, George L., Cumberland
Willis, Guy R., Marshallberg, N. C.
Wilson, Harry T., Baltimore
Wilson, Meredith R., White Hall
Wolfe, John K., Washington, D. C.
Woodell, John H., Denton
Yeager, Paul J., Catonsville
Young, Harold K., Detour
Yowell, Roy H., Washington, D. C.
Zalis, Daniel L., Baltimore
Zihlman, Frederick A., Washington, D. C.

## SOPHOMORE CLASS

Amerman, Theodore M., New York, N. Y.
Amiss, Helen C., Chevy Chase
Athey, Thomas B., Severna Park
Avery, John L., Washington, D. C.
Balch, Clyde W., Hyattsville
Barber Robert A., Baltimore
Beauchamp, A. Blair, Boonsboro
Becker, Martin, Red Bank, N. J.
Beebe, Charles H., Chevy Chase
Bell, John W., Riverdale
Benjamin, Stanley R., Port Deposit
Bennett, Lucille K., Hyattsville
Benson, Brian M., Baltimore
Berman, Edgar F., Baltimore
Bernstein, Seymour, Brooklyn, N. Y.
Billig, S. Deborah, Huntington, N. Y.
Birmingham, Thomas J., Sparrows Point
Bittinger, Charles, Washington, D. C.
Blood, Harold A., Washington, D. C.
Blumenkranz, Edward A., Washington, D. C.
Boekhoff, Claire L., Chevy Chase
Bonnett, Warren L., Aberdeen
Bonnette, Gordon W., Jr., Silver Spring
Bower, Francis M., Mt. Rainier
Bredekamp, Marriott W., Washington, D. C.
Brian, Walter P., Ellicott City
Brueckner, Fred L., College Park
Campbell, James M., Riverdale
Campiglio, Robert G., Baltimore
Capalbo, John L., Brooklyn, N. Y.
Cartee, Janet L., Hagerstown
Chesser, James W., Piney Point
Cohen, Sam H., Brooklyn, N. Y.
Collier, David L., Baltimore
Cooke, Charles H., Washington, D. C.
Coster, William F., Jr., Elmhurst, L. I., N. Y.
Cowie, Jean A., Perry Point
Cramton, William G., Washington, D. C.
Culp, Charles H., Whiteford
Culp, Richard T., Chevy Chase
Cutler, Dorothy M., Silver Spring
Daniel, Daniel R., Baltimore
Daue, Edwin O., Jr., Silver Spring
Davis, L. Voncile, College Park
Davis, Raymond, Jr., Washington, D. C.
Dawson, Roy C., Washington, D. C.
Deskin, Mark, Riverdale
Dittmar, Gordon F., Baltimore
Doeller, Donald E., Baltimore
Dorfman, Joseph S., Washington, D. C.
Dosch, Harry A., Baltimore
Dowe, Mildred A., Summit, N. J.
Downin, John E., Hyattsville
Drake, Harley D., Jr., Washington, D. C.
Dresher, Edward, Hackensack, N. J.
Edwards, George A., Silver Spring
Edwards, John B., Washington, D. C.
Edwards, William W., Chevy Chase
Ehrmantraut, John E., Washington, D. C.
Ellinger, Charles F., Baltimore
Elliott, James H., Jacksonville, Fla.
Ellison, Max M., Baltimore
Epstein, Edwin, Centreville
Evans, Dorothy E., Takoma Park
Everett, Genevieve, Pasadena
Farr, Earl W., Jr., Washington, D. C.
Farver, Donald S., McLean, Va.
Fimiani, Joseph E., Washington, D. C.
Fischer, Isadore, Washington, D. C.
Fosbroke, Gerald E., Elkridge
Fuller, Frances E., Crisfield
Gaczynski, Eugenia T., Jersey City, N. J.
Garber, George D., Frederick
Garvey, Donn E., Washington, D. C.
Gengnagel, Rosella B., Catonsville
George, Theodore J., Towson
Getty, Gorman E., Lonaconing
Goldberg, Harry, Baltimore
Golden, Margaret E., Washington, D. C.
Goldstein, Ferdinand W., Baltimore
Graeves, Raymond B., Silver Spring
Gray, Ralph, Chevy Chase
Hammerlund, Robert O., Washington, D. C.
Hargy, Francis R., College Park
Hart, John G., Hagerstown
Hartenstein, Jacob J., New Freedom, Pa.
Hebb, John S., III, Baltimore
Hendrix, Nevins B., Port Deposit
Hennig, Elmer A., Washington, D. C.
Hennion, Frank B., Washington, D. C.
Hill, Florence R., Laurel
Hines, Thomas S., Scarsdale, N. Y.
Hobbs, Lewis F., Jr., Silver Spring
Hobbs, Norman L., Silver Spring
Hoenes, Sophia W., Baltimore
Hooten, Elizabeth L., District Heights
Howeth, Robert W., Crisfield
Hughes, Robert L., Aberdeen
Hunt, Richard M., Washington, D. C.
Hutchinson, James E., Hyattsville
Hyman, Maurice, Baltimore
Ireland, Alfred W., Jr., Baltimore
Jacob, John E., Pikesville
Jacques, Lancelot, Jr., Smithsburg
Jewell, Benjamin A., Grasonville
Johns, Gladys V., Beltsville
Johnson, Pyke, Washington, D. C.
Johnston, Doris H., Takoma Park
Jones, Billie B., Lubbock, Texas
Jones, Bruce W., Washington, D. C.

Jones, Joseph F., Baltimore
Jordan, Francis X., Washington, D. C.
Kalis, Samuel D., Baltimore
Kelly, George B., Jr., Washington, D. C.
Kemper, Betty J., Washington, D. C.
Kennon, Wyatt S., Washington, D. C.
Kepler, John G., Middletown
Keplinger, Anna L., Washington, D. C.
Kerr, Roy H., Hyattsville
King, Robert M., Cumberland
King, Willard J., Washington, D. C.
Kirschner, Sylvia R., Highland Park, N. J.
Kirschbaum, Amiel, Washington, D. C.
Klein, Alvin S., Frederick
Kohn, Schuyler G., Baltimore
Kreiter, Ruth, Washington, D. C.
Krieg, Edward F., Baltimore
Krulevitz, Keaciel, Baltimore
Land, Robert H., Baltimore
Lankford, Melvin C., Baltimore
Lann, Joseph S., Washington, D. C.
Laukaitis, Peter E., Waterbury, Conn.
Layman, William T., Hagerstown
Lee, William S., Bethesda
Lenzen, Robert F., Baltimore
Levy, Arthur I., Brooklyn, N. Y.
Lewis, Mary W., Bethesda
Lindner, Dorothy E., Washington, D. C.
Loker, Frank F., Leonardtown
Lugar, Charles E., Hagerstown
Lundell, Ernst D., Chevy Chase
Maccubbin, Mary F., Laurel
Matson, Ruby I., Takoma Park
Matthews, William B., Worton
McCarthy, Joseph H., Washington, D. C.
McDowell, Robert L., Elkridge
McLachlen, Conrad D., Chevy Chase
Meeds, Eleanor R., Silver Spring
Mendelsohn, Irving P., Washington, D. C.
Merendino, Albert P., Baltimore
Meyer, William H., Baltimore
Milberg, Franklin S., Washington, D. C.
Miller, Eunice L. C., Beltsville
Mitchell, William A., Baltimore
Molofsky, Bernice, Baltimore
Morgan, Charles E., Washington, D. C.
Moskowitz, Jack, Brooklyn, N. Y.
Mullett, William B., Silver Spring
Nedomatsky, Ivan E., Lansdowne
Newman, Robert A., Chevy Chase
Nezbed, Robert L., Baltimore
Nordeen, Georgia A., Mt. Rainier
Norton, Billie, Washington, D. C.
Oliver, Elmer R., Washington, D. C.
Osborn, James M., Washington, D. C.
Ostroff, Julius J., Baltimore
Paddleford, Justin D., Washington, D. C.
Parakilas, James C., Washington, D. C.
Park, Charles A., Jr., Washington, D. C.
Patterson, J. Dale, Indian Head
Pearson, Craven P., Jr., Elkridge
Pidgeon, Ethel J., Washington, D. C.
Pierce, Karlton W., Washington, D. C.
Polack, Samuel J., Hagerstown
Posner, Leonard, Brooklyn, N. Y.
Quijano, Gregorio R., Riverdale
Raffell, Leonard N., Washington, D. C.
Remington, Jesse A., Jr., Laurel
Richmond, Marion B., Washington, D. C.
Robbins, Donald H., Washington, D. C.
Roby, Dorothy V., Riverdale
Rothman, Leon M., New York, N. Y.
Rothschild, Carl, Chefoo, China
Russell, Thomas E., Jr., Frederick
Sallow, William H., Baltimore
Savage, Dorothy E., Washington, D. C.
Scherr, Max, Baltimore
Schneider, John E., Washington, D. C.
Schuh, Geraldine J., Chevy Chase
Schwartz, Stanley E., Brooklyn, N. Y.
Scott, Walter K., Landover
Seidenberg, Abraham, Washington, D. C.
Shegogue, Edward R., Landover
Sherry, David, Baltimore
Silberg, Melvin S., Baltimore
Sinsheimer, Maurice B., Jr., Washington, D. C.
Sirkin, Louis J., St. Michaels
Sklar, Leo J., Far Rockaway, L. I., N. Y.
Smith, Frank S., Pasadena
Smith, Herbert L., Washington, D. C.
Smith, Raymond R., Washington, D. C.
Spruill, William T., Brandywine
Stambaugh, Kenneth A., Baltimore
Sterling, Meta A., Crisfield
Sugar, Beatrice, St. Pauls, N. C.
Sugar, Marshall, Baltimore
Terry, Virginia A., Washington, D. C.
Thompson, Kathryn E., Daytona Beach, Fla.
Thompson, Raymond K., Riverdale
Thurston, Eugene B., Floral Park, N. Y.
Tillotson, William B., Catonsville
Towers, G. Chester, Preston
Tuerk, C. Edward, Baltimore
Tull, Miles T., Marion
Turner, Phillip R., Takoma Park
Underwood, Francis W., Anacostia, D. C. (Md.)
Venables, Robert R., Washington, D. C.
Venemann, Virginia L., Riverdale
Wahl, Carleton W., Silver Spring
Walker, Alice J., Ellicott City
Warren, James T., Washington, D. C.
Wasserman, Jerome, Baltimore
Waters, Albert G., Washington, D. C.

Weber, Marian L., Cumberland
Wert, Janice M., Sparrows Point
Wilkins, Jesse L., Pocomoke City
Willis, Ryland L., Washington, D. C.
Wilson, Iris E., Takoma Park
Wolfson, Adolph J., Gaithersburg
Wood, Gordon S., St. Michaels
Woodward, Elwyn C., Hyattsville
Young, James M., Deale
Zankel, Max D., Brooklyn, N. Y.
Zebelean, John, Catonsville
Zimmerman, Richard E., Frederick

## FRESHMAN CLASS

Abrams, Norman J., Baltimore
Ackerman, Julius E., Washington, D. C.
Aitcheson, William W., Berwyn
Allen, John J., Hagerstown
Alter, Irving D., Baltimore
Armiger, Virginia G., Annapolis
Atkin, Maurice D., Washington, D. C.
Baevsky, William D., Penns Grove, N. J.
Barnett, Robert E., Washington, D. C.
Bastian, Charles W., Washington, D. C.
Baxley, Joshua W., Ellicott City
Beal, Anne A., Washington, D. C.
Behm, Carl, Jr., Baltimore
Benjamin, Louis, Baltimore
Benton, Charles L., Jr., Linthicum Heights
Berman, Albert D., New York, N. Y.
Bernstein, Norman, Washington, D. C.
Better, Marian L., Baltimore
Betts, Robert L., Morris Plains, N. J.
Binswanger, Charles A., Baltimore
Bishop, Eleanor K., Bethesda
Bittner, Robert J., Washington, D. C.
Bitzing, Phyllis A., Takoma Park
Bonifant, George F., Jr., Silver Spring
Bowen, Joseph J., Jr., Waterbury, Conn.
Brice, Nancy T., Millburn, N. J.
Brigham, David L., Ashton
Broadwater, Norman I., Oakland
Brockman, Ethel L., Riverdale
Brooks, Thomas R., Hyattsville
Brotman, Alfred, Baltimore
Brown, Elton H., Mt. Rainier
Brown, Thomas C., Havre de Grace
Brown, Vernon L., Landover
Brunton, Barbara E., Bethesda
Bruyninsk, Albert B., Washington, D. C.
Burton, Robert J., Cumberland
Calladine, Virginia J., Niagara Falls, N. Y.
Campbell, Robert van L., Hagerstown
Carleton, Harold B., Washington, D. C.
Carnell, Joseph R., Washington, D. C.
Cayton, Marcelle I., Brooklyn, N. Y.
Cayton, William I., Brooklyn, N. Y.
Clark, Fitzhugh, Chevy Chase
Clark, John T., Greensboro
Clarke, Kenneth G., Washington, D. C.
Claveloux, Francis J., Jr., Washington, D. C.
Clay, Dorothea, D., College Park
Clements, Samuel B., Washington, D. C.
Cohen, Maxwell L., Washington, D. C.
Conley, Virginia C., Baltimore
Cook, Charlotte C., Pampa, Texas
Corridon, Jack R., Washington, D. C.
Costello, Peter E., Baltimore
Crastnopol, Philip, Newark, N. J.
Crow, Wallace J., Washington, D. C.
Cullen, Russell H., Hyattsville
Danforth, Dorothy M., Baltimore
Denney, Fred H., Bladensburg
Dennis, James B., Havre de Grace
Detmer, John G., Chevy Chase
DeVilbiss, Preston S., III, Walkersville
Diamond, Milton A., Brooklyn, N. Y.
Dolan, Patrick L., Sparrows Point
Donohoo, Harry C., Chester, Pa.
Donohue, Mildred D., Baltimore
Douglass, William F., Washington, D. C.
Dow, Mary F., College Park
Duley, Oscar R., Croome Station
Dunn, Morris L., New Britain, Conn.
Dwiggins, Roscoe D., College Park
Eckenrode, Mary R., Manchester
Egan, John J., Waterbury, Conn.
Emery, Robert W., Mt. Rainier
Ernest, Lois E., Kensington
Farrington, Edith, Chevy Chase
Fink, Kenneth E., Baltimore
Ford, John H., Baltimore
Forman, Morris, Baltimore
Foss, George E., Relay
Franks, Steve W., Washington, D. C.
Franzoni, Joseph D., Washington, D. C.
Freiman, Herbert G., Baltimore
Friedman, Jack, Washington, D. C.
Fuerst, Robert G., Riverdale
Garneau, Pierre J., Bridgeport, Conn.
Gebhardt, Russell, Silver Spring
Gerber, Sigmund I., Washington, D. C.
Geyer, A. John, Jr., Baltimore
Gilbertson, Kenneth G., Bladensburg
Goldstein, Herbert, Prince Frederick
Greer, Margaret A., Bel Air
Groff, William D., Owings Mills
Grove, Harry C., Fairplay
Grupp, Seymour, New York, N. Y.
Gunby, Laura E., Marion
Gunther, Francis J., Washington, D. C.
Guntow, John F., Washington, D. C.
Gupton, Ewing L., Jr., Berwyn

Gutschmidt, Nathan N., Bergen, N. J.
Haimovicz, Joseph P., Washington, D. C.
Harmatz, Herb J., Washington, D. C.
Harris, Herman L., Baltimore
Hay, Perry I., Washington, D. C.
Hayman, Linwood G., Kingston
Henderson, Joseph, Rockville
Hendrix, Charles N., Port Deposit
Henkin, Allen E., Washington, D. C.
Herbert, Joseph G., Washington, D. C.
Heringman, Leo A., Baltimore
Hill, Aileen C., Baltimore
Hines, Stedman W., Scarsdale, N. Y.
Hoagland, Philip L., Washington, D. C.
Hoagland, Richard H., Washington, D. C.
Hosford, Herbert L., Linthicum Heights
Howland, Dorrance P., Laurel
Hughes, Fred J., Poolesville
Hughes, Warren A., Washington, D. C.
Hurley, John J., Landover
Hyman, Noama, Baltimore
Hyman, Thelma, Baltimore
Jackson, Frank H., Chevy Chase
Jacobs, Bernice E., Baltimore
Jacobs, John S., Washington, D. C.
Jacobs, Nathaniel J., Baltimore
Jacobs, Norman B., Jr., Gaithersburg
Jacoby, Ellsworth, Takoma Park
Johnson, George A., Baltimore
Johnson, Henry C., Washington, D. C.
Johnson, Richard M., Washington, D. C.
Johnson, William R., Baltimore
Judd, Barbara, Washington, D. C.
Keller, Joseph E., Washington, D. C.
Kempton, Christine, Lanham
Kennedy, John E., Hyattsville
Keppler, William J., Washington, D. C. (Md.)
Keyes, Karl E., University Park
Kilby, Wilson M., Conowingo
Kline, Horace F., Frederick
Kline, Marvin M., Hagerstown
Koontz, Thomas W., Dundalk
Krauss, Mary G., Baltimore
Kunzig, Louis A., Baltimore
Langschmidt, Edward G., Relay
Lank, Murrell C., Washington, D. C.
Larner, Charles D., Washington, D. C.
Lawless, Van Ness, Washington, D. C.
Lawson, J. Keith, Washington, D. C.
Leapley, Robert G., Washington, D. C.
LeCompte, Granville S., Cambridge
Lee, Richard E., Landover
Lehmann, Theodore S., Baltimore
Leon, Albert K., Washington, D. C.
Levine, Earl I., Brooklyn, N. Y.
Lewald, James H., Laurel
Lewis, Barbara R., Washington, D. C.

Liberato, Venancio Q., Riverdale
Lindsay, Gorton, P., Baltimore
Linn, Lois B., University Park
Liskey, Robert B., Hagerstown
Littleford, Rita T., Washington, D. C.
Lloyd, Merrill L., Norfolk, Va.
Long, Edwin D., Westover
Lovell, Marker J., New Windsor
Lowe, William C., Stevensville
Lowitz, Irving R., Baltimore
Maris, Helen B., Riverdale
Marriott, Margaret, Washington, D. C.
Mason, John H., Silver Spring
Mathias, Donald O., Mt. Rainier
Mathias, Foster B., Mt. Rainier
Mattingly, Joseph A., Leonardtown
Maxwell, Francis T., Towson
McBride, Dorothy M., Baltimore
McCann, George E., Washington, D. C.
McCurley, James W., Jr., Relay
McDaniel, Edward P., Jarrettsville
McFadden, Duncan B., Aberdeen Proving Grounds
McFadden, Fred M., Aberdeen Proving Grounds
McGoury, Thomas E., Odenton
McIndoo, Mary V., Takoma Park, D. C.
McIntire, John N., Oakland
McLaughlin, Arlene M., Towson
McNutt, M. Tyler, Collingswood, N. J.
McWilliams, William J., Indian Head
Meigs, Mary S., Washington, D. C.
Meinzer, Roy C., Washington, D. C.
Miller, Cary H., Branchville
Miller, Harry A., Washington, D. C.
Miller, Lawrence C., Hyattsville
Miller, Mary E., Baltimore
Miller, Matthew, New York, N. Y.
Miller, Philip, Brentwood
Moore, John E., Brookeville
Morris, Albert W., Salisbury
Morse, Armorel, Forest Hill
Myers, Melvin, Washington, D. C.
Nattans, Ralph A., Baltimore
Nelligan, Timothy B., Washington, D. C.
O'Rourke, Sheila E., Brooklyn, N. Y.
Owens, James D., Linthicum Heights
Pack, Arthur A., Jr., Washington, D. C.
Pannone, Armand M., Cumberland
Panoff, Mortimer, Brooklyn, N. Y.
Panzer, Hubert, Newark, N. J.
Parker, Katherine J., Baltimore
Pashley, Walter A., Washington, D. C.
Paterson, Helen J., Towson
Pearson, Henry R., St. Georges Island
Peffer, Paul R., Washington, D. C.
Perdew, Wilbur W., Cumberland
Perry, A. Gordon, Hyattsville

Philips, Boyd C., Washington, D. C.
Pickens, James L. College Park
Piozet, Dolores A., Hyattsville
Potts, B. Sheba, Baltimore
Powell, William A., Baltimore
Preston, Thomas T., Jr., Joppa
Price, Joseph B., Jr., Frederick
Price, Robert S., Catonsville
Purnell, William M., Ocean City
Quigley, John L., Washington, D. C.
Rabak, Richard W., Washington, D. C.
Ransom, Jean H., Coshocton, Ohio
Reedy, James C., Rocks
Reid, Florence M., Silver Spring
Resnitsky, Isabel, Jersey City, N. J.
Richardson, Donald W., Washington, D. C.
Richardson, Vaughn E., Willards
Roberts, Edward, Seat Pleasant
Robertson, Ben P., Hyattsville
Robertson, Clinton D., Oxford
Robertson, Cornelinett B., Annapolis
Robertson, Paul S., Hyattsville
Robinson, Charles H., Cardiff
Ross, Dorothy, Washington, D. C.
Royer, Conrad, Chevy Chase
Rozelle, David E., Bethesda
Sachs, Harold, Washington, D. C.
Sadle, Alexander, Washington, D. C.
Sagotsky, Samuel R., Brooklyn, N. Y.
Schaar, Walter S., Catonsville
Schrott, John D., Washington, D. C.
Scott, Thomas W., Jr., Brentwood
Shaffer, Betty B., Hyattsville
Shapiro, Helen, Baltimore
Shaw, Edward L., Chevy Chase
Sherrill, Elizabeth B., Sparks
Sherwood, William T., Jr., Washington, D. C.
Shewbridge, Benjamin B., Baltimore
Shipley, Amy E., Harman
Slott, Edward F., Asbury Park, N. J.
Smith, Charles E., Washington, D. C.
Smith, Harold W., Baltimore
Smith, Marlin R., Glen Burnie
Snyder, Roger W., Hagerstown
Stabler, Sydney S., Washington, D. C.
Staire, John, Canonsburg, Pa.

Stanley, Frances P., Hyattsville
Stein, Martin K., Baltimore
Stepp, John W., Hyattsville
Steskowitz, Isadore, Perth Amboy, N. J.
Stevens, Grace, Washington, D. C.
Strauss, Charles D., Baltimore
Strobel, Herman R., Baltimore
Swanson, Margaret E., Washington, D. C.
Thies, William N., Washington, D. C.
Thomas, Fred B., Washington, D. C.
Thompson, Irving W., Hillsboro, Va.
Thompson, Robert H., Washington, D. C.
Tolker, Ethel B., Silver Spring
Townsend, Mary E., Frostburg
Towson, William O., Baltimore
Treacy, James J., Oakland
Trice, Frederic W., Preston
Vandervoort, Susan H., Silver Spring
Van Horn, Robert P., Glenn Dale
Vaught, Valerie V., Riverdale
Vogt, John F., Jr., Catonsville
Waddill, Roland A., Jr., Washington, D. C.
Wade, Robert L., Halethorpe
Wagner, Nicholas U., Silver Spring
Waldman, Sylvia R., Hyattsville
Walker, Robert L., Chauncey, N. Y.
Walzer, Howard B., Brooklyn, N. Y.
Waters, Robert W., Princess Anne
Weinstein, Maurice A., Salem, N. J.
Weis, Helen L., Baltimore
Weiss, Robert, Washington, D. C.
Werner, Janet, Catonsville
White, Mary M., Dickerson
White, Robert P., Washington, D. C.
Whiton, Alfred C., Brentwood
Wilson, Margaret F., Baltimore
Wilson, Ruby E., Mt. Rainier
Wilson, Ruth E., Washington, D. C.
Wise, Paul S., Dover, Del.
Wolf, John F., Hyattsville
Wood, George F., Laurel
Woodwell, Lawrence A., Kensington
Yochelson, Aaron, Hyattsville
Young, Edmond G., Baltimore
Young, George A., College Park
Young, Jerome L., Washington, D. C.

## UNCLASSIFIED AND PART TIME

Bloom, Joseph Y., Visalia, Calif.
Gamble, Townley E., Silver Spring
Karow, W. Kenneth, Baltimore
Martinez, Josefina, Baltimore
Mitnick, Harry, Baltimore
Osborne, Waddell B., Mt. Rainier

Schretter, Leo B,, Providence, R. I.
Sachs, Rose, Baltimore
Simon, Ruth, Washington, D. C.
Somerville, Ruth E., Cumberland
Wiederlight, Seymour, Brooklyn, N. Y.
Wohlstadter, Leonard, Brooklyn, N. Y.

## SCHOOL OF DENTISTRY

### SENIOR CLASS

Anderson, Philip Warren, Norway, Maine
Angalone, John, Baltimore
Beckenstein, Samuel, Norwich, Conn.
Beetham, William Allen, Baltimore
Berkowitz, Joseph B., Baltimore
Bernard, Henry Chandler, Kennett Square, Pa.
Bisese, Pasquale John, Portsmouth, Va.
Black, Joseph Heatwole, Paterson, N. J.
Blake, Harris, Patterson, N. J.
Bodnar, John Clarence, Trenton, N. J.
Boyarsky, William, Passaic, N. J.
Bradshaw, Donald Frederick, New London, Conn.
Bridges, Stanley J., Prospect Harbor, Me.
Caldwell, James Theodore, Hamden, Conn.
Cofrancesco, Richard Ernest, Waterbury, Conn.
Coroso, Louis Frank, Hartford, Conn.
Costenbader, William Benjamin, Norfolk, Va.
Craig, Robert James, Wallingford, Conn.
Cross, Gerald Preston, Jersey City, N. J.
Cuddy, Frederick James, Edgewood, R. I.
Curcio, Emil Louis, Brooklyn, N. Y.
DeKoning, Edward Jay, Wheeling, W. Va.
DeNoia, Anthony Domenic, Newark, N. J.
Donohue, Thomas Van, Toms River, N. J.
Dosh, Stanley Hyde, Baltimore.
Eramo, William Stephen, Pittsfield, Mass.
Escalona, Rafael, Baltimore.
Eye, Kenneth David, Franklin, W. Va.
Fallowfield, Harry Wallace, Jr., Chestertown.
Feuer, Milton Louis, Kearny, N. J.
Flannery, Michael James, Jersey City, N. J.
Freedman, Gerson Armand, Baltimore.
Friedman, Julius William, Bridgeport, Conn.
Goldberg, Eugene Ashton, Montclair, N. J.
Goldstein, Morris, Philadelphia, Pa.
Golubiewski, Casimir Francis, Bayonne, N. J.
Gourley, John William, East Braintree, Mass.
Grossman, Nat, Newark, N. J.
Guth, Aaron, Perth Amboy, N. J.
Hartley, Thomas Grant, Baltimore.
Hills, Clifford Owen, Hartford, Conn.
Hoehn, Samuel Edmund, Lakewood, Ohio.
Houlihan, John Joseph, Torrington, Conn.
Ingber, Jack Isador, Baltimore.
Jorjorian, Arthur David, Providence, R. I.
Kayne, Clyde Benjamin, Lakewood, N. J.
Kobrinsky, Taffy Theodore, Winnipeg, Canada.
Krulewitz, Donald, Passaic, N. J.
Lerner, William Gordon, Belmar, N. J.
Levickas, Adolf Thomas, Baltimore.
Levinson, Isadore, Baltimore.
Mahoney, John Patrick, Tewksbury, Mass.
Markowitz, Aaron Burton, Paterson, N. J.
Marquez, Vernon Brensley, Trinidad, B. W. I.
Minkoff, Leo Herbert, Hillside, N. J.
Morris, Samuel, Belmar, N. J.
Morrissey, John Benjamin, Caldwell, N. J.
Noel, William Woods, Hagerstown.
Parmesano, Frederick Joseph, Elkins, W. Va.
Pente, Angelo Pasquale, Baltimore.
Phillips, Raymond Edward, West Barrington, R. I.
Pittman, Frank Reber, Linglestown, Pa.
Pridgeon, Charles Taylor, Baltimore.
Rivkin, Elmer, Brooklyn, N. Y.
Robinson, Milton Louis, Newark, N. J.
Rosiak, Julian Francis, Baltimore.
Rubin, Morris Ellis, New Bedford, Mass.
Rzasa, Stanley Anthony, Chicopee, Mass.
Sauer, Francis Ambrose, Baltimore.
Scanlon, Joseph Henry, Providence, R. I.
Schilling, Alfred Hugo, Carlstadt, N. J.
Shoben, Gerald, Baltimore.
Shulman, Marcy Lee, West New York, N. J.
Singer, Isadore Lee, Baltimore.
Skoblow, Maurice, West New York, N. J.
Snider, Hansel Hedrick, Keyser, W. Va.
Sober, Louis David, Baltimore.
Soja, Richard Alphonse, Fall River, Mass.
Stevens, Richard Andrews, Rutland, Vt.
Stone, Harvey Benjamin, Baltimore
Swain, Brainerd Foster, Newark, N. J.
Wallwork, Edward Wallace, Arlington, N. J.
Whitaker John Harry, Balboa Heights, Canal Zone.
Woodall, DeWitt Creech, Benson, N. C.

### JUNIOR CLASS

Andreorio, Patrick Louis, Morristown, N. J.
Arends, Theodore George, Washington, D. C.
Baylin, George, Baltimore.
Blanchard, Kenneth Earl, Waterbury, Conn.
Bonante, John Andrew, Sykesville, Pa.

Brodie, Leo, New York, N. Y.
Brotman, Irwin Norton, Baltimore.
Brown, Herbert Samuel, Stamford, Conn.
Buppert, Stuart George, Baltimore.
Carrill, Howard Allen, Smithsburg.
Centanni, Alfonse Guide, Newark, N. J.
Cooper, Herman Milton, Hackensack, N. J.
Corbin, Lance Nathaniel, Bel Air.
Corthouts, James Leopold, Hartford, Conn.
Cronin, John William, Sparrows Point.
Decesare, William Frank, Providence, R. I.
DiGristine, Michael Joseph, Baltimore.
Dionne, Eugene Joseph, New Bedford, Mass.
Donohue, Terrence, David, Baltimore
Evans, Marvin Ratledge, Clemmons, N. C.
Fischer, William August, Baltimore.
Friedman, Samuel, Bridgeport, Conn.
Glaser, Isadore, New York, N. Y.
Goldberg, Solomon Emanuel, Hartford, Conn.
Greenberg, Alvin A., Baltimore.
Hampson, Robert Edward, Baltimore.
Hanik, Samuel, Paterson, N. J.
Harris, Lawrence, Paterson, N. J.
Hawley, Carlotta Augusta, Washington, D. C.
Hodges, Ralph Warren, North Providence, R. I.
Hoffman, Elmer Norman, Baltimore.
Horowitz, Morris, East Orange, N. J.
Hunter, Donald Scott, Baltimore.
Impresa, Michael, Waterbury, Conn.
Inman, Byron Wallace, Mount Airy, N. C.
Jerome, Bernard, Union City, N. J.
Johnston, Samuel Burke, Dover, N. J.
Kaufman, Vernon Delbert, Baltimore.
Klotz, Otto Guido, Gloucester, N. J.
Kreshtool, Louis, Wilmington, Del.
Kress, William, Baltimore.
Kuta, Bruno Leon, Newark, N. J.
Lacher, Henry Arthur, Baltimore.
Leahy, Roland P., Franklin, N. H.
Levinson, Louis, Washington, D. C.
Levy, Meyer Lewis, Newark, N. J.
McCauley, Henry Berton, Jr., Baltimore.
Metz, Joseph Francis, Jr., Baltimore.
Meyer, Everett Nelson, Bridgeport, Conn.
Milobsky, Louis, Washington, D. C.
Mitten, Harry William II, Balboa, Canal Zone.
Muller, Frank Harry, Woodbury, N. J.
Myers, James Richard, Westminster.
Myers, Norman Frederick, Edgewood.
Nelson, Walter Josef, Providence, R. I.
Niebergall, Gerald Maher, Hackensack, N. J.
Orman, Herbert, Baltimore.
Paskell, Ray Sidna, Cumberland.
Philpot, William Charles Christopher, Jr., Elizabeth, N. J.
Racicot, Ralph Raymond, Webster, Mass.
Riddlesberger, Merklein Mills, Waynesboro, Pa.
Rogler, Wesley Edward, Weehawken, N. J.
Rosen, Harold, West Norwood, N. J.
Sabloff, Herbert, East Orange, N. J.
Schoenbrun, Alexander, Passaic, N. J.
Schwartz, Daniel David, Paterson, N. J.
Seyfert, Ernest Gustave, Stratford, Conn.
Shackelford, John Hinton, Beverlyville, Va.
Shapiro, Abe Alvin, Washington, D. C.
Shipman, Lewis Hamilton, Paxton, Mass.
Silverman, Edward, Elizabeth, N. J.
Sullivan, William Francis, Windsor Locks, Conn.
Switzer, John Robert, Jr., Harrisonburg, Va.
Tarant, Leonard Joseph, Newark, N. J.
Trupp, Garrison, Baltimore.
Tully, Edward Albert, West Hartford, Conn.
Tyburski, Francis Casimir, Derby, Conn.
Walker, James Arthur, St. Johnsbury, Vt.
Walsh, William Thomas, St. Johnsbury, Vt.
Weinstein, Herbert Milton, Union City, N. J.
Wien, Robert, Newark, N. J.
Zea, Alvaro, Colombia, S. A.

### PRE-JUNIOR CLASS

Aks, Harry, Norfolk, Va.
Barsky, Sol, Washington, D. C.
Beetham, Curtis Muse, Baltimore.
Berkowitz, Bernard Robert, Baltimore.
Berman, Irving, New Haven, Conn.
Burton, Wilbur Darwin, Jr., Dover, Del.
Byer, Joseph, Trenton, N. J.
Caputo, Anthony Victor, Newark, N. J.
Casey, William Raymond, Pawtucket, R. I.
Clewlow, Albert Thomas, Atlantic City, N. J.
Colby, Maurice Rubin, Long Branch, N. J.
Davis, Henry, Baltimore.
Davis, Mark O., Jr., Washington, D. C.
Downes, Kenneth Forsythe, Hartford, Conn.
Downs, Joseph Lawrence, Jersey City, N. J.
Eamich, Richard James, Washington, D. C.
Edwards, Melvin Frederick, Belford, N. J.
Finkelstein, Louis Benjamin, Newark, N. J.
Fox, Isadore Edward, Atlantic City, N. J.

Friedberg, Herbert, Atlantic City, N. J.
Fulmer, James Ambrose, Jr., Fountain Inn, S. C.
Gare, Morris Ralph, Newark, N. J.
Gaudreau, Raymond Joseph, Saylesville, R. I.
Glick, George Harold, Passaic, N. J.
Greenberg, Jesse Jerome, Brooklyn, N. Y.
Gregoire, Gaetan Georges, Moosup, Conn.
Heck, John Conrad, Baltimore.
Heuser, Victor Lemoine, Glen Ridge, N. J.
Jacobs, Vivian Meyer Jehiel, Harrison, N. J.
Jones, Donald Beebe Booth, Takoma Park.
Kanelos, Peter Theodore, Providence, R. I.
Kern, Louis Detrow, Jr., Waynesboro, Pa.
Kuperstein, Charles Ben, Philadelphia, Pa.
Lavine, Harold Harry, Mt. Rainier.
Leonard, Melvin Ralph, Chincoteague, Va.
Lessow, Harold Jack, Hartford, Conn.
Levin, David Aaron, Baltimore.
Levitas, Guilford, Westwood, N. J.
Lubarsky, Milton Seth, Philadelphia, Pa.
Ludwig, Roderick Joseph, Bridgeport, Conn.
Lupshutz, Bernard Melvin, Washington, D. C.
Markos, Simon George, Dover, N. H.
McLean, Harry, Cumberland.
Miksinski, Boleslaw Walter, Jr., Baltimore.
Miller, Robert Greer, Baltimore.
Mirabella, Joseph Anthony, Jr., Newark, N. J.

Moorefield, Paul Boyd, Mount Airy, N. C.
Myers, Ernest Linwood, Frederick.
Nacrelli, Chris Anthony, Jr., Marcus Hook, Pa.
Poster, Benjamin Leonard, Baltimore.
Pugh, Gordon Scott, Baltimore.
Ralph, Joseph Emile, Keyport, N. J.
Reed, Robert Alton, Milford, Del.
Reilly, Bernard Henry, Central Aguirre, Porto Rico.
Reynolds, Jotham Gay, Waterbury, Conn.
Richardson, Richard Edgeworth, Leaksville, N. C.
Riggin, Harry Ewell, Crisfield.
Roh, Frank John, Baltimore.
Rosen, Irving Harvard, Norfolk, Va.
Salvatore, Joseph Zeoli, Bristol, Conn.
Seidler, Alonzo LePage, Towson.
Shobin, Jack, Baltimore.
Shure, Maurice David, New Haven, Conn.
Silverstein, William Herman, Woodcliff, N. J.
Simington, William Bower, Potts Grove, Pa.
Simon, Morris David, Clifton, N. J.
Sloan, Isaac, Dunbar, W. Va.
Swinehart, Darwin Robert, Baltimore
Sydney, Elmer Louis, Providence, R. I.
Yoffe, Gilbert, Baltimore.
Zeiner, Raymond Edward, Torrington, Conn.
Zerdy, Alfonce Walter, Silver Creek, Pa.

### SOPHOMORE CLASS

Aaron, Alvin, Biddeford, Maine.
Aaronson, Fabius Fox, Washington, D. C.
Asbell, Milton Baron, Camden, N. J.
Bailey, Carl Elliott, Baltimore.
Barker, John Paul, Laurel.
Barnes, Bradley Bingham, Maplewood, N. J.
Blefko, John William, Slatington, Pa.
Boro, Alex L., Severna Park.
Bossert, John Theodor, Mamaroneck, N. Y.
Bozzuto, John Micheal, Waterbury, Conn.
Cabler, James Titus, Baltimore.
Cammarano, Frank Peter, New Haven, Conn.
Carrigan, Harold Joseph, Jersey City, N. J.
Cohen, Sigmund, Baltimore.
Connell, Edward William, Norwich, Conn.
Cooper, David, Atlantic City, N. J.
Cramer, Paul Edward, Monessen, Pa.
Cruit, Edwin Deller, Poolesville.

Donofrio, Richard Salvatore, Danbury, Conn.
DuBoff, Leonard, West Hartford, Conn.
Erlich, William, Baltimore.
Eskow, Alexander Bernard, Perth Amboy, N. J.
Falk, Wilbur Nelson, Branford, Conn.
Farrington, Charles Calhoun, Chelmsford, Mass.
Ferguson, Norman, Marshall, N. C.
Finegold, Raymond, Belmer, N. J.
Gemski, Henry John, New Haven, Conn.
Giuditta, Nicholas Anthony, Jr., Westfield, N. J.
Goe, Reed Thomas, Weston, W. Va.
Gorsuch, Gilbert Franklin, Sparrows Point
Habercam, Julian Wetmore, Baltimore.
Haggerty, Jack Stanley, Sussex, N. J.
Hartwell, Perley Burton, Jr., St. Johnsbury, Vt.
Heil, Roland William, Baltimore.

Johnson, William Basil, Jr., Annapolis.
Johnston, Arthur James, Providence, R. I.
Jonas, Charles Saul, Atlantic City, N. J.
Kraus, George Carl, Baltimore.
Lau, Irvin Martin, Jr., York, Pa.
Levin, Leonard Lee, Norfolk, Va.
Liberman, Sidney E., Baltimore.
Lightman, Mashe Uda Labe, Lowell, Mass.
Lyon, Eugene Davisson, Baltimore.
Margulies, David Benjamin, Linden, N. J.
Marsh, Edmond Formhals, North Adams, Mass.
Massucco, Lawrence Philip, Bellows Falls, Vt.
Mathias, Craig Prescott, Waynesboro, Pa.
McCausland, Charles Patterson, Baltimore.
McMillin, Clarence Vader, Campobello, S. C.
Meadows, Stanley J., Brunswick.
Mendelsohn, Harry Benjamin, Norfolk, Va.
Messner, Jack Menefee, Washington, D. C.
Morris, Hugh Beryl, Baltimore.
Muler, Edward Joseph, Bayonne, N. J.

Myer, Edward Herman, Jr., Mahwah, N. J.
Neal, Floyd Warren, Southington, Conn.
Noon, William Joseph, Jr., Providence, R. I.
Omenn, Leonard, Wilmington, Del.
Petrosky, Alfonso Michael, Lansford, Pa.
Rich, Otto Morris, New Brunswick, N. J.
Roitman, Irvin, Trenton, N. J.
Ryan, William Henry, Frostburg.
Saltman, David, Holyoke, Mass.
Silverman, Stanley G., Portsmouth, Va.
Slavinsky, Edwin Anthony, Baltimore.
Smyth, Lawrence Curtis, Quincy, Mass.
Stepan, Jerry James, Baltimore.
Stewart, Ford Atwood, Baltimore.
Theodore, Raymond Marwin, Baltimore.
Turok, Seymour, Passaic, N. J.
Weigel, Sterling John, York, Pa.
Westerberg, Carl Victor, Simsbury, Conn.
Wheeler, Elias Ogden, Lynchburg, Va.
Williams, Ernest Vincent, Washington, D. C.

### FRESHMAN CLASS

Auerbach, Bernard Berry, Baltimore.
Brown, Frank Anderson, Lansdowne.
Carvalho, Antone Richard, New Bedford, Mass.
Cavallaro, Ralph Carmine, Branford, Conn.
Chan-Pong, Bertrand Oswald, Trinidad, B. W. I.
Davis, James Clarke, Salisbury.
Dubansky, Paul Samuel, Baltimore.
Dunn, Naomi Ada, New Britain, Conn.
Eichenbaum, Irving William, New Haven, Conn.
Fallon, Charles Huff, Trenton, N. J.
Feindt, William Becker, Baltimore.
Gilden, Paul, Baltimore.
Griesbach, Hans Henry, Naugatuck, Conn.
Haynes, Frank Preston, Baltimore.
Hirschman, Leonard Marvin, Baltimore.
Hoffacker, Henry Jacob, Hanover, Pa.
Jakob, Robert, Norwalk, Conn.
Johnson, Walter Edgar, Berlin, N. H.
Joyce, Osler Collinson, Baltimore.
Kennedy, Walter Edward, Jr., Baltimore.

Lavoie, Odilon Joseph, Jr., Southbridge, Mass.
Maislen, Irving Lawrence, Hartford, Conn.
Maynard, Elmer John, Plainville, Conn.
McCracken, Jules, Cameron, W. Va.
Meinster, Leon, Baltimore.
Miller, Max, Baltimore.
Neumann, Walter Philip, New Britain, Conn.
Northcutt, Ernest George, Cary, N. C.
Rabinowitz, Seymour Albert, Hartford, Conn.
Raley, William Worthington, Scotland.
Schoepke, Oscar John, Oakfield, Wis.
Shaudis, Leo Joseph, Silver Creek, Pa.
Sidoti, Vincent Francis, Winsted, Conn.
Stinebert, Edward Rennert, Baltimore.
Tipton, Dorsey Robert, Baltimore.
Varipatis, Michael Stephen, Baltimore.
Walker, Harold Jones, Catonsville.
Westcott, Horace Lloyd, Branford, Conn.
Winchester, John Sinclair, Summerfield, N. C.
Wooden, John Hoffman, Jr., Baltimore.

## COLLEGE OF EDUCATION

### SENIOR CLASS

Allison, Conard B., Washington, D. C.
Allison, Maurine S., Washington, D. C.
Ashmun, Jean R., College Park.
Bartram, Frances P., Berwyn.
Boucher, Charles R., Washington, D. C.

Boyd, Elinor M., Pittsburgh, Pa.
Buscher, Francis A., Washington, D. C.
Cissel, Eleanor F., Silver Spring.
Connor, Nell V., Frostburg.
DeMerritt, Laurel M., Washington, D. C.

Dennis, G. Graham, Havre de Grace.
Dix, Alice L., Washington, D. C.
Duvall, Maude R., Rockville.
Ensor, Ellen F., Sparks.
Eyler, Louise K. E., Baltimore.
Fenton, Louise E., Washington, D. C.
Garvey, Marybeth, Washington, D. C.
Graham, James B., Glenndale.
Graham, James G., Washington, D. C.
Hamilton, Jean G., Hyattsville.
Hannum, Roberta, Berwyn.
Hasson, Eleanor V., Hyattsville.
Heironimus, Clark, Washington, D. C.
Hoffecker, Frank S., Jr., Sparrows Point.
Ijams, Elizabeth V., Baltimore.
Jarrell, Temple R., Hyattsville.
Jehle, Ruth A., Hyattsville.
Klingsohr, Helen F., New York, N. Y.
Lankford, Mary L., Elkridge.
Lawall, Willard M., Washington, D. C.
McCaw, Frederick S., Rochester, N. Y.
McKenna, John M., Baltimore.
Miller, Leona C., Washington, D. C.
Mulligan, Betty, Berwyn.
Neal, Evelyn L., Hurlock.
O'Berry, William S., Solomons.
Ordwein, Dorothy L., College Park.
Pistel, Louis L., Baltimore.
Quinn, Edward F., Washington, D. C.
Richey, Frances, Chevy Chase.
Rosenfield, Marjorie D., Mt. Rainier.
Ruffner, Ralph W., Washington, D. C.
Schwartz, Adolph, Elizabeth, N. J.
Sheff, Joseph, Annapolis.
Somerville, Jean L., Lonaconing.
Sudler, Olive W., Baltimore.
Weigel, Edna L., Berwyn.
Widmyer, Earl G., Hagerstown.
Yonkers, Genevieve Y., Flintstone.

## JUNIOR CLASS

Andorka, William, Lorain, Ohio.
Asero, John J., Washington, D. C.
Barr, B. Velma, Clarksburg.
Beall, William R., Hyattstown.
Beitler, Mary E., Relay.
Brechbill, Edith L., College Park.
Conner, Virginia, Hagerstown.
Cornell, Barbara E., Silver Spring.
Davis, John H., Hyattsville.
Duvall, Wilbur I., Gaithersburg.
Edmunds, Lois T., Washington, D. C.
Evans, Warren R., Bladensburg.
Farrell, Albert B., Washington, D. C.
Ford, M. Mell, Baltimore.
Hande, Dorothy E., Baltimore.
Herbsleb, Jack M., Washington, D. C.
Hickey, Routh V., Popes Creek.
Keller, Mary C., Washington, D. C.
Kenny, Catherine P., Quogue, N. Y.
Lohr, Walter, Baltimore.
Lustbader, Isadore W., Baltimore.
Lyddane, Blanche L., College Park.
Matthews, Robert H., Jr., Cambridge.
Mayhew, Polly H., Hyattsville.
McComas, Laura A., Abingdon.
McFarland, Cathryn E., Cumberland.
Merrill, William E., Pocomoke City.
Morrison, Mary E., Seat Pleasant.
Northrop, Everett H., Hagerstown.
Over, Ira E., Hagerstown.
Parker, Ruth E., Baltimore.
Pfeiffer, Paul E., Annapolis.
Posey, Margaret A., La Plata.
Reuling, I. Fay, Baltimore.
Rowland, Marion J., Washington, D. C.
Sachs, George H., Washington, D. C.
Sanford, Leora L., Chevy Chase.
Shank, R. Karl, Hagerstown.
Slye, Robert W., Washington, D. C.
Small, Florence F., Hyattsville.
Smith, Dorothy, Hyattsville.
Sonen, Milo W., Washington, D. C.
Stiles, Edith L., Rockville.
Terhune, Kathryn M., Washington, D. C.
Turner, Evelyn C., Salisbury.
Turner, Margaret A., Washington, D. C.
Turner, Virginia P., Salisbury.
Wall, Christine L., Catonsville.
Weld, John L., Sandy Spring.
Zerman, Claire E., Trenton, N. J.
Zimmerman, James F., Frederick.

## SOPHOMORE CLASS

Baker, Miriam O., Silver Spring
Barnsley, Jean, Rockville.
Beers, Willard E., Washington, D. C.
Bell, Edith U., Williamsport.
Berman, Bertrand S., Baltimore.
Birkland, John V., Washington, D. C.
Bowen, Gertrude E., Bennings, D. C. (Md.)
Burtner, Rosemary J., Boonsboro.
Chatham, Jeanette F., Salisbury.
Childress, Charles R., Baltimore.
Cochran, A. Mildred, Takoma Park.

Collier, Anna R., Washington, D. C.
Crisp, Mary B., Baltimore.
Davis, Robert E., Washington, D. C.
Downs, Glendora M., Williamsport.
Friedman, David, Silver Spring.
Gebelein, Conrad G., Baltimore.
Gretz, Harry B., Washington, D. C.
Guckeyson, John W., Chevy Chase.
Hall, Thomas W., Bel Air.
Hammett, James T., Leonardtown.
Henley, Robert C., Washington, D. C.
Higgins, Marjorie A., Hurlock.
Hoglund, Marion C., Takoma Park.
Hueper, Edith J., Berwyn.
Humelsine, Carlisle H., Hagerstown.
Jensen, Lorida J., Washington, D. C.
Keller, Charles E., Middletown.
Laws, Lucile V., Sliver Spring.
Lightfoot, Georgiana C., Takoma Park.
Lombardo, Michael A., Newark, N. J.
Melchoir, Donald F., Baltimore.
Miller, Louella M., Mt. Rainer.
Minker, Dorothy, Washington, D. C.
Neiderer, Rhoda R., Jenkintown, Pa.
Nordeen, Eleanor C., Mt. Rainer.
Norris, Elizabeth M., Washington, D. C.
Phillips, Beatrix R., Sudlerville.
Roberts, Mary M., Galena.
Ryan, Michael J., Washington, D. C.
Schwartz, Mortimer, New York, N. Y.
Schwartzman, Maurice, Baltimore.
Scop, Abraham, Catonsville.
Shmuner, Anne, Baltimore.
Simmel, Margaret C., Cottage City.
Smith, S. Margaret, Bel Air.
Snyder, Ruth I., College Park.
Stalfort, Carl G., Baltimore.
Stratmann, Elsie A., Sparrows Point.
Swanson, Harry R., Washington, D. C.
Talcott, Lois L., Washington, D. C.
Teal, Dorcas R., Hyattsville.
Williams, Margaret, Silver Spring.
Yaeger, Charles F., Jr., Baltimore.
Young, Carolyn R., Clintonville, Conn.
Zulick, C. M., Houtzdale, Pa.

## FRESHMAN CLASS

Ardinger, Anita J., Williamsport.
Boswell, Perry, Mt. Rainier.
Bradford, Evelyn M., Towson.
Brodsky, Hyman, Brooklyn, N. Y.
Callow, Charles E., Mt. Rainier.
Conley, Olive E., Silver Spring.
Conway, Mary V., Washington, D. C.
Corbett, Mary J., Hancock
Cronin, Frank H., Joppa
Danforth, Shirley F., Riverdale
Dominek, Mary R., College Park
Durrant, Robert E., Rochester, N. Y.
Enderle, Ethel E., Glen Burnie
Evans, Halbert K., Bladensburg
Freas, Karl G., Wheaton
Fuss, Lucille A., Hagerstown
Gearing, Jessie E., East Falls Church, Va.
Hamilton, Isabel J., Hyattsville
Harlan, Doris E., Silver Spring
Headley, Lawrence C., College Park
Heaps, Laura F., Cardiff
Heaps, Mary M., Cardiff
Heffernan, Maryelenc, Washington, D. C.
Hobbs, Dorothy M., Linden
Jacks, Margaret C., Rowlandville
Katz, Lillian, Washington, D. C.
Keller, Ralph W., Frederick
Kellermann, Eileen A., Hyattsville
Kelly, John F., Towson
Krumpach, Mary E., Luke
Landis, Phyllis A., Baltimore
Long, Elsie G., Marion
Lovell, Grace R., Brentwood
Lowry, Ruth V., Baltimore
Maizels, Selma F., Washington, D. C.
Maxwell, Edna C., Luke
McCarthy, John J., Washington, D. C.
McManus, Margaret E., Berwyn
McNaughton, Edwina B., Takoma Park
Merritt, H. Virginia, Dundalk
Michaelson, Dora F., Bladensburg
Moore, Elizabeth A., Queen Anne
Morgan, Alice S., Washington, D. C.
O'Keefe, Bernice E., Rockville
Powell, Dorothy M., Dorsey
Robinson, Grace E., Baltimore
Schreter, Arnold H., Baltimore
Shamberger, Ruth C., Baltimore
Shipley, Cora L., Branchville
Sinclair, Dorothy L., Washington, D. C.
Smith, Blair H., Mt. Rainier
Smith, Ruth R., Washington, D. C.
Surgent, Michael G., Eckley, Pa.
Tetlow, Robert M., Boyd
Trout, Dorothy V., Hyattsville
Wall, Dorothy S., Catonsville
Weisberg, Bertha, Baltimore
Weller, Lucille B., Beallsville
Wheeler, Elwood L., Glyndon
Wheeler, Waverley J., Baltimore
Wiser, Vivian D., Branchville
Wolfe, William C., Altoona, Pa.

### UNCLASSIFIED AND PART TIME

Alderton, Loretta, College Park
Anderson, Joseph A., Cherrydale, Va.
Apple, Jackson L., Washington, D. C.
Bailey, Lucille W., Washington, D. C.
Barber, Leone, Hyattsville
Beall, Susie C., Beltsville
Benson, Gladys S., Rockville
Blythe, Irene T., Washington, D. C.
Boswell, Alice A., Brookeville
Bowie, Blanche L., La Plata
Bowman, Emma M., Mt. Airy
Bowman, Urban N.. Landover
Burdette, Eunice E., Bowie
Catlette, Mildred M., Washington, D. C.
Chapman, Katheryn D., Washington, D. C.
Clark, Ellen N., Silver Spring
Cook, Edgar I., Washington, D. C.
Copes, Bessie E., Silver Spring
Copes, Grace R., Silver Spring
Craig, Madie E., Brentwood
Crothers, Reba M., Washington, D. C.
Cummings, Cleo C., Washington, D. C.
Dunn, May A., Hyattsville
Elsberg, Leon, Washington, D. C.
English, Martha C., Washington, D. C.
Fisher, Mary C., Rockville
Fleming, Euclid S., Washington, D. C.
French, Edward S., Brentwood
Frost, Francesca K., Washington, D. C.
Granbery, Helen L., Washington, D. C.
Green, Catherine R., College Park
Hall, Mary D., Takoma Park
Hall, Ruth B., Hyattsville
Hardell, Nellie G., Washington, D. C.
Harries, Frederick L., Takoma Park
Hayden, Agnes, Pope's Creek
Hayes, Ruth G., Montgomery Hills
Hiatt, Pearl, Brentwood
Hickman, Mildred, Washington, D. C.
Holzer, Emma A. F., Washington, D. C.
Horstkamp, Francis A., Washington, D. C.
Hostetler, Alice W., Rockville
Howard, Addie J., Hyattsville
Howard, Adrienne R., College Park
Ivey, Georgiana C., Washington, D. C.
Kemp, Mary, College Park
Koslow, Rose, Kensington
Kuykendall, Nancy B., Washington, D. C.
Kyle, Claudia L., Chevy Chase
Lanahan, Doris, Laurel
Lee, John P., Garrett Park
Lien, Murle K., Greenbush, Minn.
Lynch, Elizabeth S., Washington, D. C.
Mansfield, William F., Westernport
Marsden, Mary M., Washington, D. C.
Matthews, Abigail G., La Plata
Minkin, Leah, Washington, D. C.
Mitchell, Virginia V., Mechanicsville
Moore, Susanne A., Chevy Chase
Mudd, H. Virginia, Pomfret
Murphy, William T., Washington, D. C.
Myers, Constance, Riverdale
Myers, M. Evelyn, Riverdale
Nevius, J. Donald, College Park
Niland, Kathryne, Cumberland
Nolan, Edna P., Mt. Rainier
Nordby, Harriet C., Riverdale
Pagan, Katharine, Washington, D. C.
Parkman, Theodore G., Silver Spring
Queen, Helen H., Waldorf
Raver, Sarah I., Washington, D. C.
Reich, Elinor G. J., La Plata
Reidy, Kathryn, Chevy Chase
Reinohl, Louise, Hyattsville
Sessions, Ruth W., Washington, D. C.
Shepherd, Malcolm L., Washington, D. C.
Sherwood, Anna E., College Park
Shortridge, Arnold F., Cherrydale, Va.
Smith, Francis D., Washington, D. C.
Smith, Hilda H., Bowie
Smith, Orville F., Washington, D. C.
Smith, William F., Washington, D. C.
Stevens, Margaret T., Silver Spring
Stone, John T., Ferndale
Struve, Catherine, Chevy Chase
Taylor, L. Bradley, Salisbury
Thrasher, Anne N., Washington, D. C.
Tomlin, Pauline, Washington, D. C.
Weagley, Margaret H., Laurel
Webb, Margaret O., Hyattsville
White, Elsie L., Washington, D. C.
Whitney, Louise S., Silver Spring
Wilkinson, Mabel B., Washington, D. C.
Wilson, Josephine E., Upper Marlboro
Wolf, Anne E., Hyattsville
Young, Alice I., Silver Spring

## EXTENSION TEACHERS-TRAINING COURSES

### (INDUSTRIAL EDUCATION, Baltimore)

Aaronson, Philip
Annan, Clara L.
Arnold, Charles
Bachmann, Oswald
Balsam, Frank
Bargteil, Ralph
Baron, Herman L.
Bell, Raymond

Benner, Elizabeth
Blackiston, James T.
Blake, Margaret D.
Boote, Howard S.
Boylan, Edward
Brusowankin, Bessie
Buchman, Thomas
Bull, Edgar M.
Burns, H. Spilman
Capocci, Catherine F.
Carrell, James G.
Carton, Charna
Cesky, Frank
Clayman, Julius
Cohen, Sidney
Corkran, Clarence
Crane, Amy
Croddy, Arnold
Cross, Margaret B.
DeCesare, Nicholas
Denaburg, Jerome
Diehl, George C., Jr.
Dippel, Amelia
Donelson, Raymond
Douglass, Hazen
Drennan, Anna
Dudderar, Charles
Dunwoody, Ruth
Edge, Maude
Edwards, Paul C.
Ekas, Alice
Elgert, John E.
Ely, James, Jr.
Ewing, Margaret T.
Filler, W. Arthur
Freedman, Norman N.
Freeland, Minerva
Freese, Charles T.
Freese, Harriet W.
French, Ella
Friedman, Isadore
Fromm, Edwin B.
Galley, Joseph N.
Gerber, Ida
Gilbert, Loren
Giles, Marie L.
Gillum, Ethel M.
Glatt, Bernard
Goldman, Hazel
Goldman, Lillie
Goldman, Sylvia
Goldsmith, Samuel
Goldstein, Edward
Greenwald, Anne
Greenwald, Harold
Griefzu, G. Edward
Griffith, Ada M.
Grimes, John J.
Gross, Charles
Grove, Elmer
Haley, Lucille
Harper, Alta R.
Harrison, Marie
Henson, Henry
Hepting, Irene
Hesshan, Christina
Hettleman, Rose
Heylmun, Stanley
Hinson, E. Carolyn
Hisley, Lillian P.
Hocheder, Harry
Hoddinott, C. J.
Hollander, Anna
Hottes, William
Hubbard, Arthur
Hucksoll, William
Jacobs, Margaret
Jenkins, Adelaide
Jerabek, Gertrude
Jirsa, Charles
Jolly, William
Joseph, Rosina
Kalb, Merrill
Kidd, Frank
Kierson, Belle
Kinsey, Allan, Jr.
Kitt, Michael J.
Kornblatt, Joseph
Krotee, Samuel
Kuehn, Peter
Latham, Helen
Leps, Fannie
Loetell, Robert
Logan, Dorothy R.
Magness, Hattie
Maleski, Stanley
Markley, Naomi
Marsh, Frank E.
Marshall, Charles
Martin, Carrie
Marx, Ernest
Matthaei, Lewis
Maynard, Christine
Maynard, Stanley
McCaghey, Mildred
McCann, Harold
McCarriar, Herbert
McDairmant, John
Mears, Elsie
Merkle, Clifford
Meyers, George A.
Miller, Gladys
Miller, Herman
Miller, Lucy
Miller, Mayfort P.
Moore, Ruth E.
Muller, Howard
Munschauer, Roy L.

Murphy, Ruth
Myers, J. William
Nathanson, David
Neilson, Julia
Norris, Cecil
O'Keeffe, Violet
O'Neill, James
Oursler, Claude E.
Powell, George
Proctor, James O.
Pumphrey, A. Joseph
Raabe, Herbert L.
Randall, Roland
Raspe, Julia
Richardson, Charles E.
Rock, Charles
Rohde, Clarence
Rubin, Hilda
Saltzman, Michael
Schmidt, Thekla
Scott, Charles E. P.
Shepherd, Clarence
Sheppard, Ethel C.
Siegel, Esther
Silbert, Celia
Silbert, Keel
Silverman, Frank

Simmons, Marguerite
Slade, Margaret
Smith, Donald
Smith, Robert
Smith, Robert (Mrs.)
Spencer, Alma F.
Spiegel, Anna
Stevens, Mary A.
Stone, John T.
Stubbs, Ethel
Taylor, Mary E.
Toole, Florence
Townsend, Howard
Tyler, Elizabeth
Van Sant, Elizabeth
Van Sant, Hazel
Vogel, George, Jr.
Walker, Dunaway, H.
Waltham, William
Webb, John S.
Webster, George L.
White, Clinton E.
Williams, Bessie
Winchester, S. Kate
Wingate, Marie
Wolfe, Charles
Yaffe, Paul

### COLORED

Adams, Catherine W.
Allen, Antoinette
Ames, Cornelius
Berry, Ida L.
Briscoe, Joseph
Britain, Edward
Brown, J. Alexander
Bryan, Margaret L.
Callis, James A. B.
Carter, Hattie P.
Carter, James H.
Cary, Charles A.
Douglass, Helen F.
Echols, David
Fisher, Mabel
Hill, John O.
Jackson, Pearl
Johnson, Carrie
Johnson, Tazewell
Jones, Reuben
Kyler, Margaret
Lewis, James
Mitchell, Hazel
Montague, Pattie

Moore, James E.
Moore, Levi
Nixon, Alice V.
Page, Carlitta
Pennington, Bertha
Pollard, Clara
Reavis, Bessie
Reavis, Newman
Reed, John M.
Roberts, Lawrence R.
Sewell, Mary
Smith, Stanley M.
Stevenson, Eulalia
Taylor, Leroy
Tilghman, John
Tinnen, Ernest E.
Traynham, Hezekiah
Washington, Howard
Washington, Mathilde E.
White, Ruth
Williams, Iola
Woodford, Charles
Wright, David
Wynn, Vernice

### (ART COURSE, Calvert County)

Bowen, Elvin, Owings
Bowen, Margaret, Barstow
Buckler, Marguerite, Prince Frederick
Condiff, Margaret, Solomons

Cox, Myrtle, Prince Frederick
Dorsey, Grace, Broome's Island
Dorsey, Virginia, Dares
Duke, Cassie B., Frederick

Files, Gwendolyn, Solomons
Fowler, Edythe, Owings
Gray, Mary L., Prince Frederick
Hardesty, Mattie V., Owings
Harkness, Thelma W., Mutual
Hodges, Virginia, Broome's Island
King, Frances, Huntingtown

Leitch, Lyda, Prince Frederick
Lyndall, Frances, Washington, D. C.
Sollers, Virginia D., Lusby
Turner, Dorothy, Prince Frederick
Ward, Nellie, Paris
Wilson, Evelyn, Parran
Young, Mary, Barstow

## COLLEGE OF ENGINEERING

### SENIOR CLASS

Baldwin, Karl F., Jr., Washington, D. C.
Barber, Edward S., Washington, D. C.
Bolz, Alfred R., Riverdale
Bowers, Paul S., Hagerstown
Briddell, Charles D., Jr., Crisfield
Brooks, Samuel H., Washington, D. C.
Burns, Harold J., Washington, D. C.
Campbell, James A., Hagerstown
Chapman, Ray F., Davidsonville
Chick, Henry M., Washington, D. C.
Coleman, Tracy C., Washington, D. C.
Costinett, John H., Hyattsville
Davis, Denzel E., Baltimore
Davis, E. Austin, Washingon, D. C.
Dunnigan, Robert A., Washington, D. C.
Duvall, Marland W., Jessup
Foltz, Charles T., Washington, D. C.
Foltz, Daniel M., Hagerstown
Galliher, Joseph H., Jr., Washington, D. C.
Gangler, John M., Baltimore
Goldman, Julius L., Washington, D. C.
Gregory, Carl S., Seat Pleasant
Grosh, Charles G., Cumberland
Harmon, William A., Takoma Park
Hartnell, George F., Cheltenham
Herold, John A. Relay
Howard, Harry H., Jr., Chesapeake City
Kaminski, Edward, Baltimore
Kanode, Albert E., Washington, D. C.
Kemper, John M., Washington, D. C.
Knight, Richard B., Edgewood

Koenig, William M., Baltimore
Lane, Richard F., Washington, D. C.
Light, Clinton G., Capitol Heights
Logan, John A., North East
Lozupone, Constantine E., Chevy Chase
Ludwig, Charles H., Washington, D. C.
Mitchell, F. Lewis, La Plata
Morcock, J. Edward, Washington, D. C.
Morris, Charles H., Washington, D. C.
Mossburg, Philip L., Jr., Baltimore
Peper, Milton C., Stemmers Run
Peratino, George S., Washington, D. C.
Poole, Robert R., Baltimore
Pruss, Olaf S., Baltimore
Pyles, Joseph H., Baltimore
Rahe, Edward P., Baltimore
Rosenberger, Albert W., Hagerstown
Skidmore, Clinton G., Aurora Hills, Va.
Smith, John R., Washington, D. C.
Steele, Justus U., Hyattsville
Teal, Gilbert E., Pasadena
Thomas, Allan M., Jr., Washington, D. C.
Tindal, Levy R., III, Washington, D. C.
Walker, Franklin L., Washington, D. C.
Walters, J. Fairfax, Jr., Rockville
Walton, Pelham A., Washington, D. C.
Webster, Thomas H., III, Baltimore
Williams, Lee, Washington, D. C.
Woolard, Thomas L., Washington, D. C.
Zimmisch, C. Harding, Washington, D. C.

### JUNIOR CLASS

Anderson, Carroll S., Baltimore
Armentrout, John B., Bethesda
Bartelmes, Raymond F., Washington, D. C.
Beveridge, Andrew B., Berwyn
Bollman, Roger T., Baltimore
Booth, Robert S., Jr., Washington, D. C.
Brooks, James G., Washington, D. C.
Bruns, Bennard F., Baltimore
Bryan, Harry V., Washington, D. C.
Castle, Noel O., Brookmont
Christhilf, John F., Baltimore
Davis, Leon B., Chevy Chase

Dayton, B. James, Bivalve
Firmin, John M., Washington, D. C.
Flagg, Louis F., Takoma Park
Foley, Robert B., Washington, D. C.
Frank, Selby M., Washington, D. C.
Gall, Ralph G., Thurmont
Gibbs, Lewis T., Washington, D. C.
Gilbert, George E., College Park
Hall, Austin J., Washington, D. C.
Hardie, Richard E., Washington, D. C.
Hart, William A., Washington, D. C.
Hensell, Robert L., Hagerstown

Hilder, Peter F., Washington, D. C.
Horman, Austin S., Baltimore
Johnson, William T., Baltimore
King, Paul L., Washington, D. C.
Knoche, Henry G., Baltimore
Lutz, Richard L., Riverdale
Maynard, John F., Baltimore
McConnell, Andrew G., Havre de Grace
McLaughlin, Thomas O., Woodbridge, N. J.
McLean, John A., Washington, D. C.
Menke, Fred H., Washington, D. C.
Norris, Joseph V., Baltimore
O'Neill, Bernard A., Annapolis
Owens, James L., Federalsburg
Park, Louis, Baltimore
Parratt, Lyle F., Washington, D. C.
Pates, William A., Catonsville
Phillips, Jack W., Washington, D. C.
Poole, Charles W., Frederick
Rautanen, Leo W., Baltimore
Reading, William M., Kensington
Rimmer, James S. Hyattsville
Robertson, Gordon W., Washington, D. C
Robinson, Howard O., Baltimore
Root, Ellis P., Annapolis
Ruppert, Edwin L., Silver Spring
Shinn, John S., Washington, D. C.
Shipley, James W., Harman
Shoemaker, Francis D., Bethesda
Steen, H. Melvin, Washington, D. C.
Strobel, Henry C., Washington, D. C.
Volland, Richard E., Washington, D. C.
Zuk, Walter J., New Britain, Conn.

## SOPHOMORE CLASS

Anderson, Nelson R., Baltimore
Babcock, Richard E., Washington, D. C.
Bartoo, Donald G., Hyattsville
Beckham, Robert W., Bethesda
Berger, Herman W., Jr., Baltimore
Bernd, Jules P., Chevy Chase
Bily, Arthur J., Baltimore
Bishop, John C., Queenstown
Brotemarkle, Martin L., Cumberland
Calder, Wright G., Baltimore
Clark, Willson C., Takoma Park
Constance, Harry S., Jr., Catonsville
Cunningham, David R., Washington, D. C.
Dial, Herman P., Baltimore
Donahue, William J., Washington, D. C.
Eggers, Harold A., Washington, D. C.
Felton, Charles W., Washington, D. C.
Firmin, Philip, Washington, D. C.
Fletcher, Edward J., Takoma Park, D. C.
Furtney, Charles S., Cumberland
Gebhardt, Charles M., Silver Spring
Gibbs, Edward H. D., Hyattsville
Graham, Joseph R., Hyattsville
Groverman, Arthur B., Washington, D. C.
Harryman, Thomas D., Baltimore
Haspert, M. J., Chester
Heather, Thomas E., Marydel
Heiss, John W., Washington, D. C.
Horne, John F., Chevy Chase
Hudgins, Houlder, Washington, D. C.
Hueper, Louis R., Berwyn
Hutton, Joel W., College Park
Hynson, B. Thomas, Washington Grove
Jaffe, Joseph, Washington, D. C.
Janes, Charles F., Anacostia, D. C. (Md.)
Jimmyer, John K., Baltimore
Kelly, Harold L., Jr., Forest Glen
Lopata, Alexander A., Baltimore
Ludlow, Francis W., Washington, D. C.
Mann, Arthur W., Washington, D. C.
Marans, Allen, Washington, D. C.
McCool, William A., Hagerstown
McCurdy, Philip C., Kensington
McDonald, Thomas S., Perryman
McLeod, Charles D., Edmonston
McLeod, Robert J., Edmonston
Morgan, Lee, Washington, D. C.
Mueller, Eugene F., Jr., Washington, D. C.
O'Connell, Daniel T., Washington, D. C.
Ogle, Emerson, D. F., Catonsville
Orcutt, Charles B., Washington, D. C.
Patterson, Norman P., Baltimore
Peck, Alvin B., Norbeck
Phillips, Clarence W., Princess Anne
Phillips, William S., Jr., Washington, D. C.
Quigley, Edward J., Colmar Manor
Reichard, Donald S., Washington, D. C.
Rose, Glen W., Washington, D. C.
Roussos, John G., Washington, D. C.
Roylance, Merriwether L., Hyattsville
Savage, Alfred E., Washington, D. C.
Schreiber, Irvin R., Washington, D. C.
Shearer, Ross W., Washington, D. C.
Siems, John L., Jr., Washington, D. C.
Smith, Warner T., College Park
Staples, Samuel J., Jr., Lanham
Tibbets, William L., Chevy Chase
Toole, William D., Lanham
Turner, Raymond E., Takoma Park
Wedding, Presley A., Washington, D. C.
Willett, LeRoy G., Washington, D. C.
Willis, Alvin H., Washington, D. C.

## FRESHMAN CLASS

Aldridge, John W., Westminster
Ankers, F. L., Bedford, Va.
Augustine, John L., Landover
Babcock, William H., Washington, D. C.
Backhaus, Albert P., Baltimore
Baldwin, Franklin H., Washington, D. C.
Bell, Clarence E., Washington, D. C.
Belt, Kenneth G., Washington, D. C.
Bennett, Joseph H., Washington, D. C.
Berry, James B., Jr., Bennings, D. C. (Md.)
Bishoff, Frederick M., Washington, D. C.
Bowman, George A., Annapolis Junction
Bowman, William S., Aberdeen
Breaden, Richard C., Berwyn
Brockman, Carl L., Baltimore
Brode, Carl K., Frostburg
Brookhart, George C., Jarrettsville
Browning, John R., Washington, D. C.
Bryant, Roswell A., Jr., Takoma Park
Bryant, William C., Takoma Park
Buck, George W., Round Bay
Campagnoli, Francis P., Washington, D. C.
Cannon, Leon F., Washington, D. C.
Chappelear, James A., Jr., Washington, D. C.
Chilcoat, Ralph L., Washington, D. C.
Church, Frederick L., Jr., Washington, D. C.
Cladny, Harold, Washington, D. C.
Clark, Clarence E., Washington, D. C.
Clark, Ralph E., Dundalk
Collins, James E., Crisfield
Collins, Ralph A., Washington, D. C.
Collison, Malcolm N., Takoma Park
Combs, Jack T., Washington, D. C.
Corbin, Maurice E., Jr., Woodbine
Daneker, Million, Bel Air
Davis, Preston L., Jr., Washington, D. C.
Day, Charles G., Alexandria, Va.
DeArmey, Frank T., Windber, Pa.
Dole, Charles E., Chestertown
Fenton, William R., Berwyn
Finch, Alvah H., Baltimore
Frankenberger, Norbert, Washington, D. C.
Funk, William R., Jr., Baltimore
Goldbeck, Page, Chevy Chase
Gray, Vernon H., Chevy Chase
Hahn, Carl R., Bethesda
Harris, Fred, Washington, D. C.
Heaton, Charles C., Baltimore
Hemler, Clement D., Jr., Reisterstown
Hill, Harold C., Baltimore
Hilpert, John M., Bethlehem, Pa.
Holbrook, Charles C., College Park
Hollister, Curtis L., Washington, D. C.
Hood, Robert K., Washington, D. C.
Hutton, Junius O., Chevy Chase
Johnson, Clifford E., Washington, D. C.
Johnson, Robert C., Forest Hill
Jordan, Ralph S., Washington, D. C.
Kluckhuhn, Frederick H., Laurel
Ladson, Francis H., Rockville
Latterner, Henry, Jr., Chevy Chase
Lodge, Fred R., Washington, D. C.
Loweth, Donald C., Washington, D. C.
Luttrell, John C., Easton
Lynham, John C., Hyattsville
Main, Irwin I., Jr., Seat Pleasant
Malakoff, Norman H., Washington, D. C.
Martelo, Albert, Cartagena, Colombia
Mattingly, Robert L., Washington, D. C.
McChesney, S. Alvin, Hyattsville
McClenon, Donald, Takoma Park
McCleskey, Benjamin C., Washington, D. C.
McDaniel, Alden W., Chevy Chase
McKnew, Benjamin P., Laurel
Mehrling, Adrian L., Baltimore
Moore, William F., Bethesda
Muncks, John D., Baltimore
Odell, Robert C., Ellicott City
Owens, H. Malcolm, Federalsburg
Pailthorp, Robert W., Takoma Park
Parce, John R., Annapolis
Pariseau, Roger G., Bethesda
Parsons, Charles R., Washington, D. C.
Phillips, Adon W., Bethesda
Pierce, Charles H., Jr., Washington, D. C.
Porter, Wade T., Jr., Washington, D. C.
Putman, Raymond S., Washington, D. C.
Raymond, Gilbert J., Fort George G. Meade
Reed, Ira L., Laurel
Ropes, John C., Chevy Chase
Schwartz, Charles H., Branchville
Shaffer, Thomas N., Washington, D. C.
Smith, Clay F., Tahlequah, Oklahoma
Smith, John P., Jr., Washington, D. C.
Smith, Welch, Washington, D. C.
Spalding, Joseph P., Silver Spring
Stearn, Preston H., Rockville
Steward, John A., Ellicott City
Stonebraker, Jack E., Hagerstown
Talbott, Horace J., Ritchie
Tarr, Morris, Lanham
Teabo, Marshall W., Baltimore
Wagniere, Charles F., Cumberland
Walton, Robert L., Washington, D. C.
Watkins, Dayton O., Baltimore
Watson, George B., Towson
Wayson, Eugene W., West River
Wells, Robert L., Gaithersburg
Wettje, Robert H., Bronx, N. Y.
Wilkins, Arthur O., Kingston
Wilson, John G., Washington, D. C.
Wohl, Milton, Baltimore
Wolk, Reuben, Washington, D. C.
Woodwell, Stanley B., Kensington
Yourtee, Leon R., Jr., Brownsville

## EXTENSION CLASSES IN MINING

### BARTON

Andrews, Wheeler
Arnold, D. L.
Arnold, Harmon
Beeman, John, Jr.
Bradley, James
Bradley, John
Clark, Leonard
Custer, Charles
Custer, Ralph
Custer, Thomas
Elliott, Robert W.
George, Gay
Green, Anderson J.
Griffith, Curtis
Hoffa, Arthur P.
Humbertson, Charles
Hyde, Chester A.
Kenner, Jonas
Keyes, Richard
Kyle, Fred
Kyle, Harry
Kyle, Reginald
Lambert, Frank
Lashbaugh, Lewis
Logsdon, James, Jr.
Michael, Charles
Michael, Harry
Michael, R. L.
Miller, Alonzo P.
Moore, Alvie E.
Moses, David
Mowbray, John
Porter, John
Russell, Ellsworth
Saville, George
Schramm, Alfred
Schriver, Silas
Smith, Clifton
Snyder, Frank
Snyder, Harry
Thomas, George
Wilson, Lowell

### DUTCH HOLLOW

Armstrong, Thomas
Cole, Robert
Crowe, Edward
Dickel, Eugene
Dickel, Milner
Frankenberry, Charles
Frankenberry, James
Henaghan, John J.
Jenkins, Harold
Legeer, G. E.
Machin, Thomas
McKensie, Matthew
Miller, Henry
Miller, Willis
Retzer, Harry
Simpson, Alfred
Stowell, Edward
Sullivan, P. J.
Winebrenner, Fred
Winebrenner, William
Winner, C. F.

### FINZEL

Baker, Edward
Baker, William
Larue, Cecil
McKenzie, Irvin
McKenzie, John
Werner, Milton

### FROSTBURG

Anderson, Roy H.
Blackledge, Gerald
Carter, Frank W.
Carter, Robert
Condon, Thomas
Close, James H.
Close, Noah B.
Davis, Theodore
Dixon, Carl W.
Edwards, Charles
Edwards, Jack
Edwards, Robert L.
Finzel, Clarence
Glotfelty, Robert
Huston, Robert A.
Jenkins, Harold A.
MacMannis, C. Richard
Montana, Joseph P.
Montana, Samuel
Oagers, Charles A.
Powers, Clarence
Powers, Frank T.

Rephan, William H.
Richards, Arnold
Robinson, Clayton
Smouse, John L.
Sweitzer, Ben
Taylor, George
Taylor, James
Thomas, Albert
Thomas, Philip
Thomas, William H. R.
Weimer, Stanley
Weisenborne, James A.

### GORMAN

Armentrout, K. A.
Baer, Harrison
Butts, Roy
Cosner, Sidney
Dickenson, W. L.
Dilgard, R. K.
Duling, Clyde
Eger, Carl
Evans, Maynard
Foley, Lester
Hughes, John T.
Johnson, Arthur
King, Ronald
Long, Sam
Lyle, Phra
Miller, Riley
Miller, W. H.
Racey, Eston R.
Reall, Doyle
Reall, John
Reall, Walter
Ridings, Robert
Schaeffer, C. W.
Schaeffer, John
Schell, Carl
Schell, Harold
Schell, Herman
Sisler, Clarence
Sisler, Leo
Williams, G. L.
Winter, George

### JENNINGS

Alexander, Guy F.
Bittinger, Lloyd
Bittinger, Orville
Bittinger, Robert
Broadwater, Jesse
Durst, Garland
Durst, Harry
Durst, S. L.
Durst, Wilbert
Hare, Olin
Herring, Blaine
Hoover, Simon
Jones, A. H.
Keefe, Joe
Miller, Lester
Miller, Urbin
Platter, Harry
Ross, Clark
Ross, Louis
Robertson, Atlee
Swauger, Ralph
Warnick, Nevin
Weise, Robert A.
Wiley, Cortez
Wiley, William B.
Yommer, Bruce
Yommer, David
Yommer, Harold
Yommer, L. D.

### JOHNS HOPKINS

Adams, Pieerpont
Barger, Richard B.
Benser, Warren M.
Berryman, John H.
Bozzuffi, Eugene M.
Buck, George S., Jr.
Caplan, Louis R.
Carter, George M.
Chapman, John J.
Claggett, Thomas J. C.
Clark, John S.
Clotworthy, C. Baker, Jr.
Coan, John M., Jr.
Cole, Jack M. L.
Cook, Henry R.
Crane, Lawrence E.
Cribbet, Philip S.
Crouch, Edward D.
Curtis, John R.
Denues, Arthur R. T.
Dinneen, Henry H.
Ebert, John W., Jr.
Eppler, John A.
Faustman, George R.
Frederick, John H., Jr.
Gamse, Nathaniel
Gilbert, Harry C.
Goodhart, Morris
Gunther, Rigely W.
Hager, Palmer

Hastings, Charles E.
Hayden, James G., Jr.
Herget, Carl M.
Hernick, Paul W.
Hihn, Martin M., Jr.
Holtzman, Paul T.
Houck, David H.
Justice, William C.
Kenealy, Charles M.
Kirkman, Karl
Kohlerman, Frank L.
Kraemer, Leonard S.
Kramer, Irvin R.
Larrick, Charles V.
Leisch, Jack E.
Levin, Irvin
MacMurray, Lloyd C.
Marshall, Thomas H., Jr.
McGuire, Robert J.
McNeal, James D. W.
Miller, Earl C.
Miller, Theodore M.
Miller, William E.
Mitchell, John, Jr.
Moravec, Joseph L.
Nev, Willard H.
Nopper, Willis L.
Novak, Theodore S.
Onderdonk, Philip B.
Powell, William E.
Regnier, Raymond C.
Ryan, Edmund J.
Schluderberg, Donald C.
Schreitz, William G.
Semeister, John E.
Shreeve, Charles A.
Siverd, Clifford D.
Snyder, William V.
Sterling, Harry S.
Stetka, Daniel G.
Tillman, Arnold L.
Tillman, James R.
Walker, Talbot H.
Waters, Somerset R.
Weczorek, George A.
Whisler, Forbes B.
Wiehe, Theodore B.
Witte, William J.

### KEMPTON

Bennett, Henry
Buckley, Harry
Cassiday, M. E.
Fink, Creede
Gonder, Andrew C.
Hamilton, Robert
Jackson, Robert
King, Arthur
Kovach, Andrew
Lantz, A. L.
Lewis, Charles L.
Lewis, Russell
Luzier, Carl
Ryan, James
Ryan, Leslie
Ryan, Richard
Shillingberg, James
Sowers, George
Steyer, Leon
Strimel, Tony
Tasker, Albert
Tasker, Cassell
Turek, Stanley
Turek, Walter
Warsaw, Pierce
Watring, Morris
Watring, Ronald
Wiegratz, Emil

### LONACONING

Alexander, James H.
Anderson, James H.
Anderson, John W.
Brooks, James D.
Clark, John R.
Davis, Roy H.
Dye, Alfred
Langley, William
Leake, Sidney
Martin, Matthew, Sr.
Martin, William H.
McCabe, Raymond
Moffatt, James
Moffatt, Richard, Jr.
Smith, Galen
Steele, Andrew, Jr.
Steele, Claude
Steele, J. J.
Whiteman, John

### MOUNT SAVAGE

Barth, Colen
Beal, Louis
Black, Homer
Blank, Theodore
Carder, Alvin
Carter, Edward
Carter, Joseph M.
Crump, George

Frankenberry, James
Graham, John
Henaghan, John J.
Huston, Fred
Huston, R. A.
Imes, William
Lavin, Aden
Long, Alviee
Long, Marshall
McDermitt, DeSales
Monahan, Aloysius
Orndoff, T. E.
Pollock, Carl
Sandvic, William
Shaffer, George
Shaffer, Thomas
Spencer, Hobert
Stevens, Eugene
Walsh, James
Williams, C. F.
Winner, Charles F.

### VINDEX

Adams, Frank
Adams, Harold
Adams, Joseph
Adams, L. M.
Barger, Lewis
Barnhouse, Roy
Beckman, John
Beeman, Fred
Beeman, Wilbur
Bell, Andrew
Bell, Brantley
Bowers, George
Brady, W. A.
Butler, A. C.
Clark, James
Cline, Lawrence
Coleman, John
Comp, Elwood
Comp, Roy
Dahlgren, Arthur
Dahlgren, Roy
Damon, Frank
Davis, Robert
Edwards, Harry
Edwards, James
Ellenberger, Edgar
Ellifritz, Ellis
Ellifritz, Floyd
Ellifritz, Ralph
Fike, Eugene
Foley, Joseph
Friend, George
Garlitz, John
Garlitz, Wilbur
Gregory, J. E.
Junkins, Jack
Kania, Charles
Kent, Earnest
Kifer, William
Kitzmiller, Roy
Knox, Howard
Knox, Lawrence
Lanham, Lee
Lewis, George
McRobie, Newton
Michaels, John H.
Moreland, Edgar
Muffley, R. E.
Nelson, James
Paugh, Lester
Paugh, Lyle
Paugh, W. A.
Rhodes, J. A.
Rohrbaugh, Paul
Rohrbaugh, Raymond
Ross, Edward
Ross, Lawrence
Ross, Sam
Shaffer, Albert
Shaffer, Ward
Sharpless, G. W.
Simms, Benjamin
Simms, James
Stewart, Albert
Stewart, A. G.
Stewart, Frank
Stewart, William
Stewart, W. F.
Sweitzer, George
Tackett, Lelmer
Tasker, Elmer
Tasker, Orville
Tasker, R. H.
Warnick, Leonard
Weicht, Ronald

### WESTERNPORT

Bosley, Paul
Fazenbaker, Paul
Holler, Albert
Hudson, Clarence
Jones, Dubois
Kenner, Jonas
Ours, Delos
Riggleman, Lewis
Rosier, Charles
Tranum, Thomas
Wilson, Jacob

## GRADUATE SCHOOL

Acker, Keith G., St. Johns, Michigan
Adams, John R., Jr., Takoma Park
Aist, Dudley C., Baden
Alderton, Harold L., College Park
Alexander, Llye T., Berwyn
Allen, Rolfe L., Washington, D. C.
Anderson, David L., Baltimore
Anderson, Earl J., Roy, Wash.
Anderson, William H., Hyattsville
Bailey, Wallace K., Woodleaf, N. C.
Baker, Hayward R., Mt. Rainier
Baker, William B., Baltimore
Ball, Cecil R., Hyattsville
Barnes, Grace, Washington, D. C.
Bartlett, John B., Baltimore
Bartram, M. Thomas, Berwyn
Basil, John L., Annapolis
Beardsley, Erwin P., Washington, D. C.
Bell, William E., Cochranton, Pa.
Bielinski, Leon B., Baltimore
Blew, Genevieve S., Washington, D. C.
Blitch, Lila M., Statesboro, Ga.
Bond, Ridgely B., Jr., Catonsville
Bowers, Arthur D., Hagerstown
Bowman, John J., Washington, D. C.
Bradley, Helen M., Takoma Park
Brewer, Margaret G., College Park
Brown, Stanley D., Kensington
Bruening, Charles F., Baltimore
Burton, John O., Washington, D. C.
Cadden, John J., Baltimore
Campbell, William P., Hagerstown
Carpenter, William H., Washington, D. C.
Carr, C. Jelleff, Baltimore
Carter, Harry E., Washington, D. C.
Chappell, Donald W., Washington, D. C.
Chase, Spencer B., Riverdale
Clopper, Robert L., Smithsburg
Coe, Johnnie B., (Mrs.), College Park
Crowther, Harold E., Laurel
Cwalina, Gustav E., Baltimore
Dean, Reginald S., Washington, D. C.
DeDominicis, Amelia C., Baltimore
Derr, David E., Frederick
DeVolt, Harold M., Barneveld, N. Y.
Diermier, Natalie S., Westmoreland Hills
Douglass, E. M., Silver Spring
Dozois, Kenneth P., Baltimore
DuBose, Clyde H., Pocomoke City
Dunker, Melvin F. W., Baltimore
Dunnigan, Arthur P., Pylesville
Duvall, Harry M., Cheverly
Eaton, Orson N., Hyattsville
Eiseman, John H., Chevy Chase
Elvove, Joseph T., Washington, D. C.
Evans, William E., Jr., Washington, D. C.
Faber, John E., College Heights
Farrington, Helen, Chevy Chase
Fulton, Harry R., Washington, D. C.
Flint, Einar P., Washington, D. C.
Gibson, Arthur M., Baltimore
Godfrey, Albert B., Branchville
Goldstein, Samuel W., Baltimore
Goss, Donald M., Peach Bottom, Pa.
Goss, Warren H., Takoma Park
Gould, Joseph G., Baltimore
Grau, Fred V., Bennington, Neb.
Greenberg, Vivian R., Baltimore
Greve, Elmer W., Cleveland Heights, Ohio
Grove, Donald C., Baltimore
Grove, John M., Baltimore
Hankins, James M., Washington, D. C.
Haskins, Willard T., Binghamton, N. Y.
Haslbeck, Lawrence A., Baltimore
Hatfield, M. R. Washington, D. C.
Hauver, William E., Myersville
Hawkshaw, Emily, Snow Hill
Henderson, Perlie deF., Takoma Park
Hersberger, Arthur P., Barnesville
Hesse, Claron O., San Gabriel, Calif.
Holtgreve, Karl H., Baltimore
Horne, William A., Chevy Chase
Hornibrook, Floyd B., Ballston, Va.
Hoshall, Edward M., Baltimore
Houston, David F., Washington, D. C.
Howard, Frank L., Hyattsville
Hudnut, Ruth A., Takoma Park
Hull, Marjorie I., Silver Spring
Hunt, William H., Baltimore
Ichniowski, Casimer T., Baltimore
Ives, Mildred, Washington, D. C.
Jacobsen, Robert P., College Park
Jenkins, Felisa, Washington, D. C.
Jessup, Daniel A., Washington, D. C.
Jones, Wilbur, Pittsville
Kalavski, Paul, Baltimore
Kalousek, George L., Washington, D. C.
Kanagy, Joseph, R., Washington, D. C.
Kauffman, Wilbur R., Washington, D. C.
Kessler, Herman, Philadelphia, Pa.
King, John R., Bloomington, Ind.
Klinger, Mary E., Baltimore
Knowlton, John W., Baltimore
Kremen, Simon, Baltimore
Lapinsky, Herbert, Brooklyn, N. Y.
Lee, Alice R., Washington, D. C.
Littleford, Robert R., Washington, D. C.
Lowe, Charles S., College Park
Lumsden, David V., Washington, D. C.
Lutz, Jacob M., Washington, D. C
MacCreary, Donald, New Castle, Delaware
Madigan, George F., Washington, D. C.
Manchey, L. Lavan, Baltimore
Marth, Paul C., Easton

Matthews, Earle D., College Park
McCann, Lewis P., Dayton, Ohio
McCauley, Irma G., Washington, D. C.
McCurdy, Mary J., College Park
McDonald, Emma J., Washington, D. C.
McMinimy, M. Winifred, Washington, D. C.
Mead, Russell K., Nashville, Michigan
Mecham, C. Marion, Grand Island, Neb.
Metcalfe, Howard E., Takoma Park
Miller, Fred L., Mt. Rainier
Moore, Jane, Washington, D. C.
Munsey, Virdell E., Washington, D. C.
Musser, Ruth, Baltimore
Myers, Alfred T., Riverdale
Myers, Gibbs, Washington, D. C.
Nichols, James H., Harrington, Del.
Nichols, Wilbur C., Hyattsville
Nordby, Aagot E., Washington, D. C.
Nusinov, Samuel, Baltimore
Oldenburg, Grace M., Hyattsville
Painter, Elizabeth, New Freedom, Pa.
Parent, Paul A., Washington, D. C.
Pigman, William W., Washington, D. C.
Purdum, William A., Baltimore
Pusey, Louise, Riverdale
Quinn, Joseph P., Washington, D. C.
Rea, Parthia M., Landover
Reindollar, William F., Baltimore
Rice, Robb V., Missoula, Mont.
Riedel, Erna M., Gambrills
Roberts, Bertram S., Westernport
Rose, Frank W., Jr., Washington, D. C.
Rosen, Harry, Washington, D. C.
Ruble, Ralph W., Poolesville
Rutledge, Alma, Baltimore
Saylor, Louise T., Walkersville
Schopmeyer, Clifford S., Washington, D. C.
Schutte, Francis A., Washington, D. C.
Shear, Cornelius B., Rosslyn, Va.
Sherman, Louis L., Baltimore
Shrader, Sterl A., Marlinton, W. Va.
Shulman, Emanuel V., Baltimore
Siegler, Eugene A., Takoma Park
Silber, Samuel L., Baltimore
Simonds, Florence T., Riverdale
Slama, Frank J., Baltimore
Slocum, Glenn G., Washington, D. C.
Sothoron, Norwood S., Charlotte Hall
Steinbauer, Clarence E., Takoma Park
Stier, Howard L., Glenelg
Stimpson, Edwin G., College Heights
Stirton, Alexander J., Washington, D. C.
Strasburger, Minna E., Baltimore
Stutsman, Helen E., Lanham
Taylor, John K., Mt. Rainer
Taylor, Paul B., Takoma Park
Teitelbaum, H. A., Brooklyn, N. Y.
Ter Veer, Catherine L., College Park
Thompson, Ross C., Chevy Chase
Tillson, Albert H., Clarendon, Va.
Ullrich, James R., Baltimore
Veitch, Fletcher P., Jr., College Park
Vogel, Louis, Jr., Baltimore
Walls, Edgar P., College Park
Watt, Lois B., Washington, D. C.
Watt, Ralph W., Washington, D. C.
Weitzell, Everett C., Accident
Welsh, Llewellyn H., Washington, D. C.
Wentworth, Bernice R., University Park
White, Clark, Buckhannon, W. Va.
White, Richard O., College Park
Wilkinson, Perry, Washington, D. C.
Williams, Charles W., Ashland, Ky.
Wilner, Sol., New York, N. Y.
Wingate, Phillip J., Baltimore
Witt, Ewald, Washington, D. C.
Wolf, William, Silver Spring
Woods, Albert W., St. Louis, Mo.
Woods, Mark W., Berwyn
Yates, Naomi S., College Park
Zapponi, Paschal P., Wooster, Ohio
Zervitz, Max M., Baltimore

## COLLEGE OF HOME ECONOMICS

### SENIOR CLASS

Berry, Mildred L., Landover
Binswanger, Elizabeth F., Baltimore
Burslem, Ruth E., Hyattsville
Buschman, A. Betti, Leonia, N. J.
Caruthers, Bertie L., Riverdale
Ewald, Mabel E., Mt. Savage
Gibbs, Emma C., Hyattsville
Gross, Lenna L., Towson
Hardy, Margaret F., Kensington
Hill, Ruth L., Laurel
Hoage, Norma R., Washington, D. C.
Jack, Sara G., Rowlandville
Jacob, Felice E., Pikesville
Johnson, Elizabeth R., Anacostia Station
Langrall, Margaret E., Baltimore
Loeffler, Ernestine M., Laurel
Moore, Catherine M., Bishop
Norman, Julia A., Stevensville
Pierce, Dorothy O., Baltimore
Soper, Agnes P., Washington, D. C.
Speicher, Hazel M., Accident
Stanley, Estelle A., Silver Spring
White, Marian P., Silver Spring
Wollman, Helen E., Baltimore
Wright, Anita B., Jessup

### JUNIOR CLASS

Aitcheson, Catherine E., Laurel
Anderson, Hanna G., Chevy Chase, D. C.
Benedict, Frances, Silver Spring
Booth, Emma L., Brunswick
Bowker, Lucile, Washington, D. C.
Carlton, Mildred E., Bethesda
Claflin, Mary J., College Park
Cross, Mary R., Queenstown
Fouts, N. Rebekah, Washington, D. C.
Goss, Betty J., Takoma Park
Merritt, Jeanette R., Chevy Chase
Rea, Florence R., Washington, D. C.
Rymer, Joan W., Hyattsville
Taylor, Mary V., Perryman
Vogt, Carolyn L., Annapolis
Wellington, Ruth E., Takoma Park
White, Virginia L., Washington, D. C.

### SOPHOMORE CLASS

Baines, Anna M., Lanham
Brown, Elizabeth D., Washington, D. C.
Craig, Katherine N., Hyattsville
Dahn, N. Eloise, Chevy Chase
Doub, June B., Hagerstown
Ellis, Bernice, Washington, D. C.
Franklin, Sarah E., Hyattsville
Garner, Mary F., Washington, D. C.
Giles, Martha L., Washington, D. C.
Goll, Katharine E., Washington, D. C.
Gorsuch, M. Jeannette R., New Windsor
Hardy, Katharine R., University Park
Hazard, Edith W., Takoma Park
Jones, M. Phyllis, Washington, D. C.
Lane, M. Helen, Goldsboro
Leishear, Virginia E., Washington, D. C.
Mattoon, Catherine van L., Takoma Park
McCall, Marjorie S., Chevy Chase
Millar, Dorothy V., Washington, D. C.
Miller, Mary J., Silver Spring
Price, Margaret A., Ridgewood, N. J.
Schmidt, Valette A., Washington, D. C.
Smeltzer, Mary B., Silver Spring
Solliday, Alice J., Blue Ridge Summit, Pa.
Somers, Helen, Hyattsville
Starr, Margaret E., Hyattsville
Stearns, Lois E., Mt. Rainer
Stolzenbach, Helen A., Baltimore
Waldman, Flora E., Washington, D. C.
Ward, Peggy, College Park
Weaver, Ella K., Ellicott City
Weidemann, Janet S., Washington, D. C.
Whitmer, Helen L., Washington, D. C.
Wulf, Vivian E., Washington, D. C.

### FRESHMAN CLASS

Allen, Josephine R., Takoma Park
Beall, Virginia L., Bethesda
Beggs, Mary A., Baltimore
Broughton, Elinor C., College Park
Burrier, Letitia S., Baltimore
Caldwell, Katherine, Chevy Chase
Cammack, E. Virginia, Washington, D. C.
Clapp, Helen E., Chevy Chase
Cochran, Olive A., Washington, D. C.
Cowman, Mary A., Baltimore
Cruikshank, Eleanor M. A., Baltimore
Cutting, Maude P., Washington, D. C.
Dulin, Jean M. A., Friendship Heights
Edson, Peggie M., Washington, D. C.
Fisher, Ida A., Takoma Park
Giltner, Harriet C., Washington, D. C.
Goldsmith, Cecilia E., La Plata
Gould, Irene S., Takoma Park
Hearn, Mildred L., Salisbury
Heineken, Mary P., Salisbury
Herbert, E. Naomi, Baltimore
Hershberger, Anna, Luray, Va.
Hutchinson, M. Carol, Takoma Park
Jeffers, Betty C., Washington, D. C.
Jefferson, Evelyn M., Salisbury
Johnson, Edna E., Brentwood
Jones, Audrey S., Washington, D. C.
Kaylor, Helen L., Hagerstown
Knight, Ruth E., Washington, D. C.
Kuhn, Lois M., Bethesda
Lyons, Betty L., Baltimore
McCollum, Kathleen C., Baltimore
McGinnis, Verneena, Brooklyn, N. Y.
Mills, Josephine H., Cumberland
Myers, Edith W., Washington, D. C.
Nash, Constance M., Chevy Chase
Pearce, Elsie R., Brentwood
Quirk, Eleanor K., Washington, D. C.
Rashkin, Harriet P., Brentwood
Reville, Ruth C., Baltimore
Rosin, Anne, Chevy Chase
Skinner, Doris E., Port Republic
Snyder, Paula W., Washington, D. C.
Thawley, Helene E., Denton
Walker, Vera H., Ellicott City
Webb, Virginia R., Washington, D. C.
Weber, Ruth P., Cumberland
Wellington, Esther R., Takoma Park
Woolf, Dorothy A., Washington, D. C.

### UNCLASSIFED AND PART TIME

Patterson, Dorothy H., Elkridge

## SCHOOL OF LAW

### FOURTH YEAR EVENING CLASS

Barker, Charles Bates, Baltimore
Cockrell, Francis Irwin, Baltimore
Dowell, George Howard, Baltimore
Dulin, Wilbur R., West Annapolis
Finnerty, Joseph Gregory, Baltimore
Galvin, Joseph Mannion, Baltimore
Getz, Louis, Baltimore
Kenney, Francis Louis, Jr., Pittsburgh, Pa.
Kerlin, Thomas Henry, Baltimore
Kravetz, Louis Behr, Baltimore
Lotz, John Bernard, Jr., Baltimore
Lowe, Edwin William, Baltimore
Mayfield, Thomas Hunt, Jr., Baltimore
McCormick, Francis Xavier, Baltimore
Oakley, Columbus Knight, Baltimore
Parks, Zadoc Townsend, Jr., Baltimore
Schilpp, Ernest Allen, Baltimore
Smith, Stewart Lee, Baltimore
Topper, Gerald Edward, McDonogh
Watchorn, Carl William, Baltimore
Wellmann, William Ernest, Jr., Baltimore
White, Edgar Alfred, Annapolis

### THIRD YEAR DAY CLASS

Carlin, Richard McCormick, Baltimore
Carpenti, Peter John, Cumberland
Claggett, Thomas West, Jr., Baltimore
Epstein, Benjamin Francis, Centreville
Forsythe, John Royden, Baltimore
Gill, Robert Lee, Jr., Baltimore
Haile, Walter Reckord, Towson
Henry, Thomas Hughlett, Jr., Easton
Invernizzi, Fred William, Baltimore
Jones, Laurance Bateson, Ruxton
Kenney, Thomas James, Baltimore
Lotz, Philip Lee, Ellicott City
Miller, Daniel, Stamford, Conn.
Mylander, Walter Charles, Jr., Cockeysville
Reeder, Robert Carey, Jr., North East
Ritz, John Henry, Catonsville
Rudolph, George Griffin, Baltimore
Sanford, John Lowry, Jr., Berlin
Smith, Robert Lee, Baltimore
Sykes, David Samuel, Baltimore
Vauthier, David Woodward, New Market
Wachter, Frank Charles, Baltimore
Welsh, Thomas Hammond, Jr., Hyattsville
Wigginton, Robert E., Leonardtown
Yocum, Edmund Farley, Baltimore

### THIRD YEAR EVENING CLASS

Blake, William French, Baltimore
Cohen, Elbert Hubbard, Baltimore
Engeman, George Hyde, Baltimore
Gardiner, Norman Bentley, Jr., Riderwood
Hurlock, C. Harlan, Jr., Baltimore
Lurz, Thomas Albert, Baltimore
Macaluso, Samuel James, Annapolis
Manekin, Bernard, Baltimore
Miller, Irvin, Baltimore
Miller, Thomas Lawrence, Baltimore
Moran, Francis Robert, Baltimore
Moran, John Joseph, Jr., Baltimore
Patrick, John Francis De Valangin, Baltimore
Taylor, George Dunham, Jr., Louisburg, N. C.
Tippett, James Royall, Jr., Baltimore
Waidner, Robert Allen, Baltimore
Wood, Howard Graham, Baltimore

### SECOND YEAR DAY CLASS

Boylston, Edward Shoemaker, Columbia, S. C.
Brinsfield, Calvin Linwood, Rhodesdale
Chesnut, Elizabeth Maxwell Carroll, Baltimore
Clark, Ernest Collins, Salisbury
Constable, Albert, Elkton
Depro, Frank Smith, Baltimore
Dickey, John Maxwell, Deale
Digges, John Dudley, La Plata
Doub, Elizabeth Boys, Cumberland
Gerson, Milton, Frostburg
Hamburger, Herbert David, Baltimore
Horchler, Edwin Maxwell, Cumberland
Kaiser, Joseph Otto, Baltimore
Karper, Sharpe Deardorff, Hagerstown
McCabe, James Gordon, Towson
McGrath, James Joseph, Jr., Baltimore

Miller, Sydney Boroh, Baltimore
Naughton, Harold Edward, Cumberland
Pergler, Carl, Washington, D. C.
Rafferty, William Bernard, Baltimore
Renneburg, John Norris, Baltimore
Renninger, Julius Christian, Jr., Oakland
Roney, James Albert, Jr., North East
Rothschild, Randolph Schamberg, Baltimore
Russell, Joseph Crandell, Annapolis
Schwaab, Harry Donald, Baltimore
Singley, Frederick J., Jr., Baltimore
Smith, Everett Irving, Oradell, N. J.
Stansbury, William Benton, Jr., Baltimore
Stirling, Campbell Lloyd, Baltimore
Sullivan, Daniel Stephen, Jr., Baltimore
Tarantino, Henry Joseph, Annapolis
Tubman, Vincent Alexander, Westminster
Verlin, Bernard Monaham, Baltimore
Welsh, John Thomas, Cumberland
Whitworth, Horace Pritchard, Jr., Westernport
Young, Thomas Gorsuch, Jr., Baltimore

### SECOND YEAR EVENING CLASS

Applefeld, Irving Jonas, Baltimore
Athey, Charles Edwards, Severna Park
Becker, James Stephen, Baltimore
Bender, William Francis, Baltimore
Bloom, Joseph Gerald, Baltimore
Bonn, Douglas Keith, Baltimore
Buffington, John Raymond, Jr., Baltimore
Carlin, Vincent Francis, Jr., Baltimore
Carr, Eberle William, Baltimore
Clarke, DeWitt Forman, Baltimore
Cohen, Bernard Solomon, Baltimore
Coolahan, Joseph Paul, Baltimore
Dixon, Earl Martin, Baltimore
Donovan, David Alexander, Baltimore
Gamse, LeRoy Levald, Baltimore
Graves, Clifford Holmes, Baltimore
Houff, Thomas Meredith, Baltimore
Jacobson, Alfred Theodore, Baltimore
Kaplan, Maurice A., Baltimore
Keech, Frank Bartholomew, Baltimore
Linthicum, Sweetser, Linthicum Heights
Lipsitz, Myron Lea, Dallas, Texas
Loden, Joseph Daniel, Catonsville
Mattingly, Edward Wiegand, Baltimore
Mraz, Anton Joseph, Jr., Perth Amboy, N. J.
Picario, Philip John, Baltimore
Power, Gordon Gilbert, Baltimore
Power, John Carroll, Baltimore
Rouse, James Wilson, Easton
Scott, Clarence, Jr., Baltimore
Stissel, Carl Frederick, Baltimore
Tucker, William Randolph, Baltimore
Wesner, Lawrence Everingham, Baltimore

### FIRST YEAR DAY CLASS

Barron, William Wallace, Baltimore
Boyd, Thales Stewart, Glen Burnie
Buffington, Albert Brightman, Baltimore
Buzzell, Allen Eugene, Sparrow's Point
Carscaden, William Robert, Cumberland
Cullen, Richard Edmund, Delmar, Del.
DiStefano, Louis Samuel, Baltimore
Evarts, Roger Sherman, Towson
Ewing, Sherley, Baltimore
Ferguson, Jean, Baltimore
Gill, Constance, Baltimore
James, William Smith, Havre de Grace
Jencks, Elizabeth Pleasants, Baltimore
Karow, William Kenneth, Baltimore
Lipin, Edward John, Pasadena
Maginnis, Paul Tobin, Baltimore
Malkus, Frederick Charles, Cambridge
Martin, Richard, Baltimore
McFaul, Harry Algire, Baltimore
Meyers, Amos I., Baltimore
Moore, Charles Davis, Baltimore
Morton, James Cooke, Jr., Linthicum Heights
Nowak, Henry Lawrence, Wilmington, Del.
Potts, Charles Joseph, Salisbury
Reicher, Sol. M., Baltimore
Rosenbaum, Herbert Holladay, Baltimore
Rouse, John Gould, Jr., Baltimore
Samet, Lester Alvin, Baltimore
Schaub, Edward Anthony, Jr., Baltimore
Sfekas, Pete, Baltimore
Sindall, Robert Allison, Jr., Baltimore
Sinskey, Henry Lyon, Jr., Baltimore
Struzinski, Henry Paul, Baltimore
Toula, Jaroslav Jerry, Baltimore
Tyler, James Edward, 3rd., Baltimore
Warhol, John, Jr., Mahwah, N. J.
Watson, Paul Edward, Jr., Salisbury
Williams, Robert Hope, Jr., Baltimore

### FIRST YEAR EVENING CLASS

Askew, John Landon, Towson
Athey, William Bernard, II, Severna Park
Blaul, Richard Ferdinand, Baltimore
Boyd, J. Frank, Barstow
Boyd, Omar Klauder, Baltimore
Cohen, Jerome Bernard, Baltimore
Cooper, Norman Edgar, Baltimore
Culverwell, J. Mason, Baltimore

Daneker, Clayton Wilbur, Baltimore
Dunn, Sylvan Raymond, Baltimore
France, Ralph Hayward, Baltimore
Goldberg, Herman, Baltimore
Harding, Henry Joseph, Jr., Baltimore
Higinbothom, Edward Dulany, Bel Air
Hoffman, Grace, Baltimore
Hohman, Martin Aloysius, Baltimore
Hood, Mary Dorothy, Baltimore
Hopkins, Samuel, Catonsville
Jackson, Charles Elmer, Jr., Towson
Johnson, Raymond Blair, Johnstown, Pa.
Karasik, Abe Sidney, Baltimore
Katzenstein, Alvin, Baltimore
Kelly, Caleb Redgrave, Baltimore
Levie, Max I., Baltimore
Linstrom, Neal Oliver, Baltimore
McIntyre, Edward LeRoy, Baltimore
Mitchell, Joseph Paul, Baltimore
Motry, George Oswald, Baltimore
Mueller, Henry Anthony, Baltimore
Page, Maurice Judson, Derby, Vt.
Palmore, Julian Ivanhoe, Jr., Baltimore
Sattler, Eugene Joseph, Baltimore
Scheffenacker, Lewis Emil, Baltimore
Sergent, David A., Jr., Baltimore
Silverman, Arnold, Baltimore
Sippel, John Parker, Baltimore
Sollenberger, McCord, Baltimore
Stearns, Cameron Courtney, Bel Air
Stick, Gordon Malvern Fair, Glen Arm
Storm, Edward Daniels, Frederick
Sybert, Edward James, Elkridge
Thompson, Charles Wellington, Mt. Washington.
White, Walter Miller, Salisbury

### UNCLASSIFED DAY

Gott, Winson Gilbert, Jr., Annapolis
Lung, Clarence Wesley, Smithsburg

### UNCLASSIFED EVENING STUDENTS

Clark, Louis Dorsey, Ellicott City
Neidhart, John Wendel, Baltimore
Quick, Walter Jacob, Jr., Baltimore

## SCHOOL OF MEDICINE

### GRADUATE STUDENTS

Carr, C. Jelleff, Baltimore
Dozois, Kenneth Pierre, Baltimore
Evans, William Ellsworth, Jr., Washington, D. C.
Hunt, William Howard, Baltimore
Painter, Elizabeth Edith, Baltimore
Reindollar, William Franklin, Baltimore
Teitelbaum, Harry Allen, Brooklyn, N. Y.

### SENIOR CLASS

Adelman, Milton Harris, Brooklyn, N. Y.
Albrittain, John Warren, La Plata
Alessi, Edward James, Baltimore
Alonso, Miguel, Palmer, Porto Rico
Alpert, George, Dorchester, Mass.
Anderson, John Bascom, Asheville, N. C.
Aungst, Melvin Rauch, Mechanicsburg, Pa.
Barnes, Henry Eugene, Jr., Cooleemee, N. C.
Battaglia, Dominic Thomas, Baltimore
Bierer, Dan George, Delmont, Pa.
Bock, Charles Aloysius, Pittsburgh, Pa.
Brouillet, George Hector, Holyoke, Mass.
Bunn, James Pettigrew, Jr., Battleboro, N. C.
Cassidy, William Adrian, Bangor, Me.
Cohen, Philip, Long Branch, N. J.
Cornbrooks, Ernest Ivon, Jr., Collingswood, N. J.
Cotter, Edward Francis, Baltimore
Cutler, Frank Henry, Salt Lake City, Utah
Dickey, Francis George, Baltimore
Diehl, Earl Henry, Baltimore
Dodge, Douglas Rude, Ann Arbor, Mich.
Doerner, Alexander Andrew, New York, N. Y.
DuBois, Robert Lionel, Naugatuck, Conn.
Dunnigan, William Charles, Baltimore
Einhorn, Samuel Edward, Newark, N. J.
Ewald, August Ludwig, Jr., Baltimore
Fader, Ferdinand, East Orange, N. J.
Freeman, Irving, Baltimore
Fruchtbaum, Robert Pearson, Newark, N. J.
Galitz, Philip Jacob, Brooklyn, N. Y.
Gerwig, Walter Henry, Jr., Parkersburg, W. Va.
Godbey, John Randolph, Charleston, W. Va.
Grenzer, William Howard, Baltimore
Gross, Joseph Bernard, Baltimore
Hammill, Gerard Paul, Carnegie, Pa.
Hamrick, John Carl, Shelby, N. C.

Harris, Aaron, Baltimore
Hartman, Ira Frank, Buckhannon, W. Va.
Heghinian, Jeanette Rosaline, Baltimore
Helfrich, William Goldsborough, Catonsville
Herald, James Kennedy, Youngstown, Ohio
Herrold, Lewis Charles, Port Trevorton, Pa.
Hollander, Arthur, New York, N. Y.
Hugg, John Henry, Jeanette, Pa.
Hunt, Josiah Arnold, Hyattsville
Jordan, William Pritchard, Powellsville, N. C.
Kaminsky, Aaron Louis, Newark, N. J.
Kane, Harry Francis, Baltimore
Keller, Michael Lawrence, Paterson, N. J.
Klein, Harold Henry, Scranton, Pa.
Klompus, Irving, Bound Brook, N. J.
Knowles, Frederick Edwin, Jr., East Orange, N. J.
Laino, Frank Armento, Baltimore
Lane, Edwin Charles, Hillside, N. J.
Layton, Caleb Rodney, Canisteo, N. Y.
Lewis, Archie Clifton, Kingston
Lichtenberg, Walter, New York, N. Y.
Lieb, Saul, Newark, N. J.
Llewelyn, Louis Grandin, Baltimore
MacLaughlin, Donald Clay, Hagerstown
Marek, Charles Bernard, Baltimore
Mays, Howard Brooks, Cockeysville
McDonough, Oscar Tracy, Jr., Washington, Pa.
McGregor, Alpine Watson, St. George, Utah
McGregor, Lorenzo Watson, St. George, Utah
McHenry, DeArmond John, Benton, Pa.
Mech, Karl Frederick, Baltimore
Mills, Lawrence Hoy, Clarksburg, W. Va.
Montgomery, Bruce, Fairchance, Pa.
Noon, Milton Alexander, Jr., Millersville
Pepe, Anthony James, Derby, Conn.
Raffel, William, Baltimore
Reier, Charles Henry, Glen Arm
Roberts, David P., Baltimore
Robinson, Harry Maximilian, Jr., Baltimore
Robinson, Milton Irving, Brooklyn, N. Y.
Rogers, Frank Tipton, Knoxville, Tenn.
Rosen, Israel, Baltimore
Rosen, Sol Hyman, Bridgeton, N. J.
Rosenberg, Harold William, New York, N. Y.
Russell, John Carroll, Maddox
Schlachman, Milton, Baltimore
Schmitt, George Fredrick, Jr., Baltimore
Schonfeld, Paul, Baltimore
Shapiro, Joseph, New York, N. Y.
Shapiro, Sydney Harold, New York, N. Y.
Shaul, John Melvin, Richfield Springs, N. Y.
Siscovick, Milton, Baltimore
Skeen, Leo Brown, Biscoe, N. C.
Spitznagle, Vernon Edward, Fruitland
Stein, Benjamin Maxwell, Hempstead, N. Y.
Teitel, Louis, New York, N. Y.
Teitelbaum, Harry Allen, Brooklyn, N. Y.
Tuby, Joseph Joel, Brooklyn, N. Y.
Vozel, Luther F., Baltimore
Waghelstein, Julius Meyer, Baltimore
Warren, John McCullen, Durham, N. C.
Wheless, James Block, Louisburg, N. C.
Williams, Jesse Frank, Jr., Clarksburg, W. Va.
Williamson, Charles Vernon, Catonsville
Wilson, Norman James, Sparrows Point
Wode, Alvin Eugene William, Baltimore
Wood, Everett Hardenbergh, Westfield, N. J.
Woodward, Lewis Klair, Jr., Westminster

## JUNIOR CLASS

Batalion, Abraham Louis, Baltimore
Beers, Reid Lafeal, Salt Lake City, Utah
Bernstein, Milton, Baltimore
Bieren, Roland Essig, Baltimore
Booth, Harold Thomas, N. Tarrytown, N. Y.
Bowie, Harry Clay, LaPlata
Bunn, James Harry, Jr., Henderson, N. C.
Burka, Irving, Washington, D. C.
Burns, Harold Hubert, Girardville, Pa.
Burton, Jerome Kermit, Catonsville.
Bush, Joseph Edgar, Hampstead
Chesson, Andrew Long, Elizabeth City, N. C.
Ctibor, Vladimir Frantisek, Ridgewood, N. J.
Czekaj, Leo Michael, Baltimore
Davidson, Nachman, Baltimore
Davis, George Howey, Brunswick
Deehl, Seymour Ralph, Dover, N. J.
Deradorian, Neshon Edward, New Britain, Conn.
Dittmar, Stuart Watt, Ingram, Pa.
Dixon, Darius McClelland, Oakland
Drozd, Joseph, Baltimore
Feldman, Jerome, Baltimore
Fissel, John Edward, Jr., Baltimore
Fox, Lester Mitchel, Baltimore
Franklin, Philip Lair, Baltimore
Frich, Michael Garland, Belle Vernon, Pa.
Gillis, Marion Howard, Jr., St. Michaels
Gimbel, Harry Solomon, Baltimore

Glassner, Frank, Baltimore
Gordner, Jesse Walter, Jr., Jerseytown, Pa.
Greengold, David Bernard, Annapolis
Gregory, Philip Orson, Boothbay Harbor, Me.
Greifinger, William, Newark, N. J.
Grollman, Jaye Jacob, Baltimore
Herman, Daniel Loeb, Baltimore
Isaacs, Benjamin Herbert, Baltimore
Jones, Ceirianog Henry, Scranton, Pa.
Jones, Emory Ellsworth, Jr., Mount Hope, W. Va.
Karfgin, Walter Esselman, Baltimore
Karpel, Saul, New York, N. Y.
Katz, Joseph, Baltimore
Kleiman, Norman, Baltimore
Knobloch, Howard Thomas, Greensburg, Pa.
Kolodner, Louis Joseph, Baltimore
Kroll, Louis Joseph, Baltimore
Lipin, Raymond Joseph, Pasadena
Lowman, Robert Morris, Baltimore
Lund, Grant, St. George, Utah
Mansfield, William Kenneth, Carnegie, Pa.
Maser, Louis Robert, Baltimore
McCauley, A. Franklin, Baltimore
McKnew, Hector Caldwell, Jr., Riverdale
McNinch, Eugene Robinson, West Alexander, Pa.
Moran, James Blessing, Providence, R. I.
Moran, James Patrick, New York, N. Y.
Moses, Benjamin Bernard, Baltimore
Myerovitz, Joseph Robert, Baltimore
Myers, William, Pittsburgh, Pa.
Nester, Hansford Dorsey, Ronceverte, W. Va.
Nestor, Thomas Agnew, Providence, R. I.
Nicholson, Morris John, Dundalk
Nowak, Sigmund Roman, Baltimore
O'Brien, William Aloysius, Jr., Passaic, N. J.
O'Nolan, Martin James, Wexford, Ireland
Parr, William Andrew, Baltimore
Pembroke, Richard Heber, Jr., Park Hall
Pentecoste, Salvador Dante, Bloomfield, N. J.
Pigman, Carl, Farraday, Kentucky
Reichel, Samuel Marvin, Annapolis
Reynolds, John Henry, Jr., Kennett Square, Pa.
Rochlin, Narcisse, Baltimore
Roseman, Ralph Bernard, Philadelphia, Pa.
Rosenthal, Victor, Brooklyn, N. Y.
Royster, James Dan, Bullock, N. C.
Schmieler, George Peter, Pittsburgh, Pa.
Selby, George Durward, Baltimore
Shimanek, Lawrence Joseph, Baltimore
Smith, William Carey, Goldsboro, N. C.
Solomon, Cyril, Baltimore
Sorin, Matthew, Jersey City, N. J.
Spain, David Michael, Brooklyn, N. Y.
Squires, Millard Fillmore, Jr., Elkton
Stapen, Milton Honore, Brooklyn, N. Y.
Stecher, Joseph Louis, Baltimore
Steinberg, Samuel, Baltimore
Stern, Morris Harold, Passaic, N. J.
Sunday, Stuart Dos Passos, Baltimore
Terr, Isaac, New York, N. Y.
Thomas, Anthony Joseph, New Bedford, Mass.
Tierney, Lawrence Matthew, West Haven, Conn.
Troutman, Baxter Suttles, Addor, N. C.
Vieweg, George Louis, Jr., Wheeling, W. Va.
Waller, William Kennedy, Baltimore
Wehner, Daniel George, Baltimore
Weinstein, Jacob Joseph, Baltimore
Wells, Gibson Jackson, Baltimore
Wilfson, Daniel, Jr., Baltimore
Wilkinson, Arthur Gilbert, Orange, Conn.
Wolf, Nathan, Baltimore
Yavelow, Charles Sidney, Mount Vernon, N. Y.
Zimring, Joseph George, Brooklyn, N. Y.

## SOPHOMORE CLASS

Abbott, Thomas Gilbert, Baltimore
Bank, R. Stanley, Baltimore
Barnett, Ernest, New York, N. Y.
Bereston, Eugene Sydney, Baltimore
Bowers, John Zimmerman, Catonsville
Brill, Leonard, Baltimore
Burtnick, Lester Leon, Baltimore
Carlson, Carl Edwin, New Haven, Conn.
Casanova, Jose Ramon, Hato Rey, Puerto Rico
Christensen, Roland Arnold, Philadelphia, Pa.
Cocimano, Joseph Michael, Washington, D. C.
Cooney, Robert Francis, Scranton, Pa.
Coughlan, Stuart Gray, Baltimore
Daily, Louis Eugene, Baltimore
D'Alessio, Charles Magno, Derby, Conn.
D'Amico, Thomas Vincent, Newark, N. J.
Davidson, Eli, New York, N. Y.
Diggs, Everett Schnepfe, Baltimore
Eisner, William Monroe, Brooklyn, N. Y.
Ellison, Emanuel Simon, Baltimore
Ensor, Helen Robinson, Baltimore
Finn, John Hannon, Pittsfield, Mass.
Frenkil, James, Baltimore
Frohman, Isaac, Baltimore
Gehlert, Sidney Richard, Baltimore

Gillespie, John Lawrence, Arlington, N. J.
Goffin, Herbert, New York, N. Y.
Goldberg, Sigmund, Baltimore
Gordon, William Cecil, Brooklyn, N. Y.
Gore, Robert Joseph, Baltimore
Gottdiener, Elvin Edward, Baltimore
Greenwald, Frank, New York, N. Y.
Hahn, Charles Solomon, Brooklyn, N. Y.
Hedrick, Grover Cleveland, Jr., Beckley, W. Va.
Highstein, Benjamin, Baltimore
Hochfeld, Leo, New York, N. Y.
Hodgson, Eugene Welch, Houston, Pa.
Hoffman, Charles Wilbur, Jr., Baltimore
Humphries, William Coolidge, Baltimore
Insley, James Knox, Jr., Baltimore
Jackson, Samuel, New York, N. Y.
Jacobson, Isadore Alan, Baltimore
Johnston, Clarence Frederick, Jr., Baltimore
Jones, James Porter, Pennsboro, W. Va.
Kadan, James Earl, Baltimore
Kagen, Gordon Arthur, Reading, Pa.
Kaltreider, D. Frank Olewiler, Jr., Red Lion, Pa.
Kaplan, Isadore, Baltimore
Kaplan, Jack Allen, Brooklyn, N. Y.
Kaplan, Nathan, Baltimore
Katz, Albert Herbert, Baltimore
Katz, Isadore, Brooklyn, N. Y.
Kemick, Irvin Bernard, Baltimore
Klemkoski, Irvin Philip, Baltimore
Kolman, Lester Norman, Baltimore
Kunkowski, Mitchell Frank, Baltimore
LaMar, David William, Middletown
Leskin, Louis Woron, Brooklyn, N. Y.
Levine, Leonard Warren, Hartford, Conn.
Levinson, Leonard Jules, Brooklyn, N. Y.
Linhardt, Elmer George, Eastport
Lisansky, Ephraim Theodore, Baltimore
Long, William Broughton, Jr., Princess Anne
Lubinski, Chester James, Baltimore
Mackowiak, Stephen Casimir, Dundalk
Manieri, Frank Vincent, Baltimore
Marino, Irene Thelma, Allegany, N. Y.
Matheke, Otto George, Jr., Newark, N. J.
Meyer, Milton Joseph, Jamaica, N. Y.
Muller, Stephen Edwin, Bradshaw
Muse, Joseph Ennalls, Baltimore
Myers, Philip, Baltimore
Nataro, Maurice, Newark, N. J.
Novey, Samuel, Baltimore
Owens, Richard Spurgeon, Jr., Roanoke, Va.
Pass, Isidore Earl, Baltimore
Pavlatos, August Constantine, Lancaster, Pa.
Perlman, Lawrence, Ridgewood, N. Y.
Piccolo, Pasquale Albert, New Haven, Conn.
Pokrass, Frederick Phillip, Towanda, Pa.
Resnick, Elton, Baltimore
Revell, Samuel Thompson Redgrave, Jr., Louisville, Ga.
Rigdon, Henry Lewis, Aberdeen
Robins, Isadore Morris, Luzerne, Pa.
Robinson, Martin Herman, Philadelphia, Pa.
Rochkind, Reuben, Baltimore
Roseman, Ephraim, Baltimore
Rubin, Morris, New Haven, Conn.
Rudman, Gilbert Elmore, Baltimore
Safran, Sidney, Baltimore
Sakowski, John Paul, Bayonne, N. J.
Sartorius, Norman Ellis, Jr., Pocomoke City
Scarborough, Clarence Parke, Jr., Delta, Pa.
Schmidt, Jacob Edward, Baltimore
Seegar, John King Beck Emory, Jr., Baltimore
Seidel, Joshua, Baltimore
Semoff, Milton C. F., Sea Gate, N. Y.
Shapiro, Abraham, Baltimore
Shear, Meyer Robert, Baltimore
Spielman, Morton Marvin, Baltimore
Stapen, Mannie, Brooklyn, N. Y.
Statman, Bernhardt Joseph, Newark, N. J.
Steiner, Albert, Baltimore
Sullivan, Thomas John, Teaneck, N. J.
Suwalsky, Sydney, Hartford, Conn.
Thompson, James Upshur, Cambridge
Trupp, Mason, Baltimore
Weems, George Jones, Prince Frederick
Weiss, Henry Wolf, Ellenville, N. Y.
Whitworth, Frank Dixon, Westernport
Wilkin, Mabel Giddings, Brenham, Texas
Williams, Richard Jones, Cumberland
Williams, Robert Roderic, Rochester, N. Y.
Wolff, Eldridge Henry, Cambridge
Woodrow, Jack Henry, Yonkers, N. Y.
Zacek, Frank Anthony, Webster, Mass.
Zeligman, Israel, Baltimore

## FRESHMAN CLASS

Abarbanel, Milton G., Jersey City, N. J.
Abrahams, John James, Jr., Port Deposit
Abramson, Daniel Jerome, Baltimore
Applefeld, Willard, Baltimore
Asimakes, Charles Peter, Baltimore
Barenburg, Clara, Baltimore
Baum, Max, Baltimore
Blandford, Alma, College Park

Bonner, Robert Alexander, Jr., Waterbury, Conn.
Borden, Melvin, Baltimore
Bradley, Stanley Edward, Baltimore
Brooks, Wilbur Starr, East Haddam, Conn.
Brown, Manuel, Baltimore
Bunting, John James, Clifton, N. J.
Callahan, Timothy Andrew, Jr., Bel Air
Chance, Burton, Jr., Radnor, Pa.
Cohen, Hilliard, Baltimore
Colleran, Harold Leo, Jessup, Pa.
Coolahan, John Francis, Baltimore
Cooper, Donald Dwight, Towson
Costas, Jaime Luis, Ponce, Puerto Rico
Cowherd, William Jerome, Long
Crawford, Robert Clifford, Baltimore
Dausch, Michael Joseph, Baltimore
Dodd, William Anthony, Baltimore
Dolfman, Victor, Philadelphia, Pa.
Eichert, Arnold Herman, Woodlawn
Feder, Aaron, Jackson Heights, N. Y.
Fox, Lester Irving, Haverhill, Mass.
Fox, Samuel Louis, Baltimore
Gareis, Louis Calvin, Baltimore
George, Joseph Mathias, Jr., Sudersville
Gertman, Samuel, Baltimore
Ginsberg, Milton, Baltimore
Glassman, Edward Lewin, Baltimore
Goodman, Louis E., Jr., Baltimore
Goodman, Sylvan Chauncey, Baltimore
Gottdiener, Florence Hazel, Baltimore
Govons, Sidney Robert, Baltimore
Graff, Frederick Lewis, Parkersburg, W. Va.
Guyton, William Lehman, Baltimore
Haase, John Henry, Baltimore
Harris, Sidney, Paterson, N. J.
Hayleck, Mary Lodema, Baltimore
Horky, John Ralph, Bel Air
Jannarone, Lewis Henry, Belleville, N. J.
Januszeski, Francis Joseph, Baltimore
Katz, Gabriel Elliott, Baltimore
Katz, Milton Aaron, Westminster
Kelmenson, Harry, Baltimore
Knox, John Joseph, Gettysburg, Pa.
Kotleroff, Jerome, Brooklyn, N. Y.
Kump, Albert Barker, Bridgeton, N. J.
Kurtz, Gerald Independence, Paterson, N. J.
Kyle, Henry Hall, Waterbury
Ladensky, Milton, Baltimore
Lauve, Celeste Constance, Baltimore
Lenker, Luther Albert, Harrisburg, Pa.
Lipsitz, Morton Hirsch, Baltimore
Lopez, Hilton Luis, Mayaguez, Puerto Rico
Lumpkin, William Randolph, Baltimore
Magness, Stephen Lee, Baltimore
Meyer, Charles Nathaniel, Baltimore
Michaelson, Ernest, Bladensburg
Milholland, Arthur Vincent, Baltimore
Miller, Clarence Lee, Hannibal, Mo.
Miller, Royston, Baldwin
Miniszek, James Haight, Baltimore
Molofsky, Leonard Carl, Baltimore
Palmer, David Waugh, Wheeling, W. Va.
Post, Laurence Caldwell, Buckhannon, W. Va.
Powell, Geraldine Kennedy, Baltimore
Rizzolo, John, Newark, N. J.
Roman, Paul, Baltimore
Rossello, Juan A., Ponce, Puerto Rico
Rothkopf, Henry, Ellenville, N. Y.
Sabatino, Bernard Joseph, Baltimore
Sarajian, Aram Martyr, Ridgefield Park, N. J.
Schaefer, John Ferdinand, Baltimore
Schammel, Adam John, Baltimore
Schenthal, Joseph Edwin, Baltimore
Scherlis, Sidney, Baltimore
Schlesinger, Robert Abraham, Flushing, N. Y.
Scott, John Matthai, Baltimore
Sevcik, Charles Vincent, Baltimore
Seymour, William Abercrombie, Trappe
Sharp, Martin Burke, Cumberland
Sheppard, Robert Clay, Baltimore
Siegel, Edward, Poughkeepsie, N. Y.
Silberman, Donald Jared, Birmingham, Alabama
Smith, John P., Baltimore
Sprei, Emanuel, New York, N. Y.
Stein, Aaron, Baltimore
Steinberg, Morris William, Baltimore
Swiss, Adam George, Baltimore
Taliaferro, William Booth, Norfolk, Va.
Thomas, Bernard Oscar, Frederick
Thompson, Winfield Lynn, Rehobeth
Twardowicz, Albin Harry, Baltimore
Ullman, Alfred, Jr., Baltimore
Urlock, John Peter, Jr., Baltimore
Vollmer, Frederick Joseph, Baltimore
Wagner, John Alfred, Baltimore
Wanner, Jesse Rosenberger, Jr., Salisbury
Warner, Margaret Elizabeth, Baltimore
Warres, Herbert Leonard, Brooklyn, N. Y.
Weisberg, Millard, Baltimore
Welfeld, Alvan Abram, Baltimore
White, Harry Fletcher, Jr., Baltimore
White, S. Cottrell, Baltimore
Winer, Albert Sidney, Baltimore
Woodward, Theodore Englar, Westminster
Worthington, Richard Walker, Baltimore
Wulwick, Michael, Brooklyn, N. Y.
Yaffe, Kennard Levinson, Baltimore

# SCHOOL OF NURSING

## GRADUATE STUDENTS

Conklin, Ada Lythe, Hyattsville
Doll, Elizabeth Anne, Omar, W. Va.
Dutterer, Bernice May, Westminster
Koontz, Hettie Elizabeth, Westminster
Lewis, Myra Elizabeth, Washington, D. C.
Matzen, Kathryn Margaret, Berwyn
Nixon, Elizabeth Maie, Winfall, N. C.
Snyder, Wilda Louise, Windber, Pa.
Tanttari, Gertrude Viola, Dundalk
Weller, Ethel Elizabeth, Baltimore

## SENIOR CLASS

Barden, Thelma Alice, Goldsboro, N. C.
Bowman, Sara Kathryn, Cumberland
Chaney, Yolanda Wellington, Baltimore
Chelluk, Helen Ethel, Baltimore
Coley, Mabel Jackson, Danville, Va.
Elchenko, Alice Vera, Van Voorhis, Pa.
Evans, Ethel Irene, Dundalk
Gwaltney, Thelma Lucille, Claremont, Va.
Hamilton, Elsie Avlona, Fort Mill, S. C.
Hoddinott, Beatrice Edison, Harrington, Del.
Hoke, Anne Frances, Emmitsburg
Kurtz, Marguerite Louise, Joppa
Miller, Helen Marie, Grantsville
Miller, Rita Virginia, Baltimore
Nunnelee, Elizabeth Lewis, Washington, N. C.
Potter, Mary, Baltimore
Price, Ruth Rattenbury, Denton
Rencher, Dorothy Anne, Jesterville
Richards, Mary Garnet, Pennsboro, W. Va.
Roth, Mabel Pearl, Baltimore
Roush, Ruth Mildred, Baltimore
Rullman, June, Towson
Shimp, Marie Hopfield, Baltimore
Thompson, Emma Virginia, Hurlock
Wheeler, Claudia Maxine, Rowlesburg, W. Va.
Whitehurst, Doris Virginia, Winchester, Va.
Wilson, Lillian Louise, Pocomoke City

## INTERMEDIATE CLASS

Bowling, Vernice Lee, Elm City, N. C.
Claiborne, Nina Sterling, Kingstree, S. C.
Connelly, Frances Emily, Rising Sun
DeLawter, Margaret Tressa, Williamsport
Dodson, Ruth Elizabeth, Baltimore
Dooley, Angela Rose, Linthicum Heights
Fowble, Mary Eleaor, Upperco
Heilman, Marian Elizabeth, Weirton, W. Va.
Illmer, Emily Winifred, Baltimore
Johannes, Norma Louise, Pekin, Ill.
Kefauver, Mary Catherine, Smithsburg
Knoeller, Mary Olree, Waverly, Va.
Lindsay, Grace Elizabeth, Lexington, N. C.
Lloyd, Doris Glyspie, Whiteford
Lubinski, Sophie Ann, Baltimore
Magaha, Annabelle Louise, Frederick
Miller, Hazel Almeda, Fawngrove, Pa.
Myers, Charlotte Fisher, Baltimore
Odom, Marguerite, Ahoskie, N. C.
O'Sullivan, Anne Jessup, Hertford, N. C.
Riley, Della Pauline, Emmitsburg
Rose, Margaret Bowen, Atlanta, Ga.
Smith, Florence Beryl, Marlinton, W. Va.
Tayloe, Frances, Ahoskie, N. C.
Thomas, Lucile Gordon, Jefferson, S. C.
Thompson, Ruby Jean, Logan, W. Va.
Wicker, Virginia Dare Courtney, Danville, Va.

## JUNIOR CLASS

*Cole, Velma Lurleen, Burlington, N. C.
*Cornelius, Sarah, Baltimore
*Cramer, Mildred Elizabeth, Walkersville
*Hooe, Mina Geraldine, Charles Town, W. Va.
*Knight, Sallie Frances, Courtland, Va.
*Moye, Louise Manning, Goldsboro, N. C.
*O'Connor, Beatrice Patricia, Sanford, Fla.
*Parks, Willye Frances, Parksley, Va.
*Skinner, Mary Imogene, Shepherdstown, W. Va.
*Wilson, Mabyl Jane, Belleville, Pa.

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*Entered probation class, February 1, 1934.
Promoted to junior class, August 1, 1934.

## PROBATION CLASS

Banes, Mary Virginia, Manokin
Blair, Frances Adele, Baltimore
Bosley, Wanda Delphine, White Marsh
Breedlove, Annie Marie, Petersburg, Va.
Carpenter, Catherine E., Waverly, Va.
Clinkscales, Ellen Myers, Charleston, S. C.
Cook, Frances Julia, Catonsville
Dallmus, Esther Mary, Baltimore
Day, Matilda Ellen, Dayton
Dorney, Dorothy Huntley, Buffalo, N. Y.
Eckman, Jeannette Thresa, Morrell P. O.
Fadeley, Anna Elizabeth, Havre de Grace
Foller, Frances Irene, Baltimore
Griffith, Elinor Lee, Allen
Headley, Evelyn Jane, Middletown, Va.
Hersh, Naomi Grace, Manchester
Kanady, Cara Louise, Catonsville
Kautz, Marjorie Lucile, Somerset, Pa.
Kluka, Mary, Farrell, Pa.
Laughlin, Clara Jane, Baltimore
Leary, Ruth, Stemmers Run
Leigh, Louise Skinner, Hertford, N. C.
Lewis, Edith Evelyn, Havre de Grace
Mattson, Evelyn Lucile, Baltimore
McArthur, Muriel Hill, Awendaw, S. C.
Morgan, Erna Mildred, Bedford, Va.
Pennington, Rose, Bel Air.
Pilgrim, Beatrice Lorraine, Chambersburg, Pa.
Quarterman, Lena Winifred, Nicholls, Ga.
Rayme, Carolyn Roberta, Fullerton
Rudisill, Mary Laurie, Iron Station, N. C.
Sappington, Frances Virginia, Hagerstown
Scarborough, Dusetta Elizabeth, Street
Shaffer, Charlotte Eileen, Hampstead
Sherrill, Evelyn Freelove, Sparks
Slick, Jane Isabelle, Hagerstown
Spicer, Mavis Lucile, Washington, D. C.
Stauffer, Eleanor Frances, Cardiff
Strickland, Rose Elizabeth, Curwensville, Pa.
Sutton, Edna Earl, Goldsboro, N. C.
Toom, Dorothy, Baltimore
Trott, Jeanette, New London, N. C.
Turner, Margaret Catherine, Mayodan, N. C.
Wagner, Helen Kathryn, Barrackville, W. Va.
Welsh, Mary Kathryn, Somerset, Pa.

# SCHOOL OF PHARMACY

## GRADUATE STUDENTS

Baker, William B., Baltimore
Bruening, Charles Frederick, Baltimore
Cwalina, Gustav Edward, Baltimore
DeDominicis, Amelia Carmel, Baltimore
Dunker, Melvin Frederick William, Baltimore
Goldstein, Samuel William, Baltimore
Grove, Donald Cooper, Baltimore
Hoshall, Edward Melchoir, Baltimore
Hunt, William Howard, Baltimore
Ichniowski, Casimer Thaddeus, Baltimore
Manchey, L. Lavan, Glen Rock, Pa.
Purdum, William Arthur, Baltimore
Rice, Robb Vernon, Missoula, Montana
Roberts, Bertran S., Westernport
Rosen, Harry, Washington, D. C.
Sherman, Louis Lazar, Baltimore
Shulman, Emanuel Veritus, Baltimore
Slama, Frank James, Baltimore
Vogel, Louis, Jr., Baltimore
Zervitz, Max Morton, Baltimore

## FOURTH YEAR CLASS

Blitz, Louis, Baltimore
Briele, Henry Alison, Baltimore
Ciurca, Joseph Charles, Baltimore
Cohen, Bernard Carlton, Baltimore
Healey, William George, Jr., Baltimore
Horwitz, Isadore, Baltimore
Kirk, Catherine Evans, Rising Sun
Lusco, Santi Vincent, Baltimore
Mandrow, Mary A., White Marsh
Noel, Harriett Ruth, Hagerstown
Ogrinz, Alexander John, Baltimore
Prostic, Harry, Baltimore
Sperandeo, Frank Joseph, Baltimore
Stain, Dorothy, Baltimore

## THIRD YEAR CLASS

Baylus, Herman, Baltimore
Bellman, Frank Albert, Baltimore
Berkowich, Melvin Irvin, Oxford, Pa.
Bernstein, Aaron, Baltimore
Cherry, Bernard, Baltimore
Cohen, Frank Samuel, Baltimore
Cohen, Sammie Herbert, Baltimore
David, Irvin, Baltimore
Drennen, James Holley, Havre de Grace
Euzent, Hannah, Mount Airy

Feret, Julius Walter, Baltimore
Foster, Carroll Pross, Baltimore
Freed, Arnold Ulysses, Baltimore
Freedman, Albert, Baltimore
Gaver, Leo Junior, Myersville.
Glass, Abraham Leonard, Baltimore
Goldberg, Sylvan David, Baltimore
Gounaris, Themistocles Nicholas, Baltimore
Hartman, Oscar, Baltimore
Hewing, Ada Chamberlain, Baltimore
Hoffman, Asher, Baltimore
Honkofsky, Jerome, Baltimore
Jankiewicz, Frank Joseph, Baltimore
Kamber, Bertram, Baltimore
Kandel, Leonard Elliot, Baltimore
Kappelman, Melvin Daniel, Baltimore
Kleczynski, Thomas Carter, Baltimore
Kobin, Benny, Baltimore
Kurland, Albert Alexander, Baltimore
Laken, Benjamin Bernard, Baltimore
Leibowitz, Benjamin, Baltimore
Levin, Benjamin, Baltimore
Levin, Israel, Baltimore
Levin, Nathan, Baltimore
Marks, Irving Lowell, Baltimore
McGinity, F. Rowland, Baltimore
McNamara, Bernard Patrick, Baltimore
Mess, Sister Mary Adamar, Baltimore
Molinari, Salvatore, Baltimore
Moskey, Thomas Andrew, Jr., Washington, D. C.
Muskatt, Edith, Baltimore
Nuttall, James Baker, Sharptown
Ogurick, Alexander, Baltimore
Paul, Frank Ronald, Baltimore
Peretz, Harry, Baltimore
Platt, William, Baltimore
Pressman, Harry, Baltimore
Pruner, Sister Mary Theodosia, Baltimore
Rachuba, Lawrence William, Baltimore
Reamer, Sidney Harold, Baltimore
Reimann, Dexter LeRoy, Baltimore
Richter, Conrad Louis, Baltimore
Robinson, Harry Bernard, Baltimore
Robinson, Raymond Clarence Vail, Baltimore
Rodney, George, Anneslie
Sadove, Max Samuel, Baltimore
Sause, Milton Philip, Baltimore
Shochet, Sidney, Baltimore
Silberg, Harvey Gerald, Baltimore
Silverman, Sylvan, Baltimore
Smith, William Harry, Jr., Baltimore
Steel, Harold, Baltimore
Survil, Anthony Adolph, Baltimore
Tenberg, David Paul, Baltimore
Thompson, Paul Howard, Waubay, S. Dak.
Tramer, Arnold, Baltimore
Tublin, Solomon, Baltimore
Vondracek, John Wesley, Baltimore
Walman, Morris, Baltimore
Wilder, Milton Jay, Baltimore
Winakur, Arthur, Baltimore
Youch, Charles Anthony, Baltimore

## SECOND YEAR CLASS

Allen, Benjamin Frank, Baltimore
Alliker, Morris Joshua, Baltimore
Alperstein, Reuben Robert, Baltimore
Aumiller, William Nicholas, Baltimore
Beck, Sylvan E., Baltimore
Bliden, Abraham, Baltimore
Brune, Richard Curtin, Baltimore
Cermak, Jerome Jerry, Baltimore
Cichetti, Licinio Thomas, Baltimore
Cohen, Hershel, Baltimore
Conner, Elmer Smith, Baltimore
Crane, Warren Eugene, Loch Arbour, N. J.
Damico, Samuel, Baltimore
Dawson, Leroy, Oldham, Baltimore
Einbinder, Sylvan Phillip, Baltimore
Ellerin, Albert Abraham, Baltimore
Enten, Harry, Baltimore
Fish, Herman Jesse, Baltimore
Friedman, Charles Steele, Grafton, W. Va.
Friedman, Leonard, Baltimore
Giller, Morris, Baltimore
Ginaitis, Alphonsus Stephen, Brooklyn Park
Glickman, Shirley Madelyn, Baltimore
Hanna, William Melvin, Baltimore
Heyman, Albert, Baltimore
Hoffman, Sylvan Allan, Baltimore
Hope, Daniel, Jr., Ellicott City
Inloes, Benjamin Harrison, Jr., Baltimore
Karns, James Roscoe, Cumberland
Karpa, Jerome Jay, Baltimore
Kosakowski, Chester George, Baltimore
Laken, Joshua, Baltimore
Levy, Frank F., Baltimore
Lieb, Frank Joseph, Baltimore
Martin, Clarence Wilbur, II, Baltimore
Mayer, Alexander Maass, Baltimore
Merkel, Henry, Baltimore
Meusel, Jerome Andrew, Baltimore
Miller, Solomon, Baltimore
Mindell, Charles, Baltimore
Morgenstern, Emma Louise, Woodlawn
Mouat, Gordon Anthony, Baltimore
Musacchio, Leo Milton, Baltimore
Myers, Irvin Louis, Baltimore
Neutze, John Frederick, Baltimore
Novak, Arthur Francis, Baltimore
Nurkin, Bernice Vivian, Baltimore
Pierpont, Ross Zimmerman, Woodlawn

Purdum, Frank Lewis, Baltimore
Rabinowitz, Irving Wolf, Baltimore
Rapoport, Leonard, Baltimore
Raudonis, John Anthony, Hudson, N. H.
Rosenfeld, Israel Aaron, Baltimore
Rutkowski, Edward Vincent Paul, Baltimore
Santoni, Daniel Anthony, Baltimore
Sapperstein, Edward Isidore, Baltimore
Sborofsky, Isadore, Baltimore
Scherr, Melvin Gerald, Baltimore
Schulte, William Albert, Baltimore
Schumm, Frederick Albert, Baltimore
Seechuk, William Walter, Baltimore
Semer, Gerald Melvin, Baltimore
Silverman, Irvin Israel, Baltimore
Stone, Harry, Baltimore
Supik, William Joseph, Baltimore
Tompakov, Sylvan, Baltimore
Traband, Millard Tolson, Jr., Sudbrook Park
Turner, Albert Franklin, Jr., Baltimore
Valle, Philip Joseph, Baltimore
Walb, Winfield Alexander, Baltimore
Wasilewski, Theodore John, Baltimore
Waxman, Milton Malcom, Baltimore
Weiner, David, Baltimore
Weisberg, Ruth Racquel, Baltimore
Winn, Solomon, Baltimore
Yaffe, Morris Robert, Baltimore
Zenitz, Bernard Leon, Baltimore

## FIRST YEAR CLASS

Aaronson, Alfred Irving, Baltimore
Abrams, Arnold, Baltimore
Alessi, Rudolph Edgar, Baltimore
Amorky, Herman Maurice, Alexandria, Va.
Appel, Andrew Francis, Baltimore
Azzara, Lucy Rita, Baltimore
Barry, John Gordon, Baltimore
Beam, Merlin Ayler, Garrison
Bixler, Richard Stevenson, New Windsor
Bloom, Morton I., Baltimore
Boyd, Frank Elmer, Baltimore
Bundick, William Ross, Baltimore
Cohen, Bernard Isaac, Baltimore
Colvin, Ralph, Baltimore
Combs, Joseph Lee, Jr., Baltimore
Creeger, Julius Leon, Baltimore
DiGristine, Charles Lawrence, Baltimore
Edlavitch, Sam, Baltimore
Ewell, John Wardlaw, Baltimore
Feldman, Jack, Baltimore
Floyd, Melvin Luther, Catonsville
Fribush, Sidney, Baltimore
Friedman, Aaron, Baltimore
Friedman, Marion, Baltimore
Furman, Alphonse Charles, Baltimore
Gakenheimer, Walter Christian, Catonsville
Galley, Roland Paul, Baltimore
Gendason, Harry Benjamin, Baltimore
Gertz, Rubin, Baltimore
Green, Bernard, Baltimore
Gregorek, Frank Julius, Baltimore
Gude, William Diffenderffer, Baltimore
Hager, George Philip, Jr., Baltimore
Hamburger, Morton Leonard, Baltimore
Hamlin, Kenneth Eldred, Jr., Baltimore
Harrison, Kenneth Leo, Jr., Baltimore
Hayes, Louis Ernest, Jr., Baltimore
Heyman, Bernice, Baltimore
Hopkins, Carville Benson, Annapolis
Ingraham, Harold Charles, Baltimore
Jarowski, Charles, Baltimore
Jones, Cyrus Francis, Baltimore
Kaminkow, Joseph, Baltimore
Kaminkow, Joseph Hyman, Baltimore
Kardash, Theodore, Baltimore
Katz, Emanuel Oscar, Baltimore
Katz, Morton, Baltimore
Katzen, Isadore, Baltimore
Kelley, Gordon William, Baltimore
Kellough, Elmer Robert, Jr., Cumberland
Kessler, Jerome, Baltimore
Kovitz, Armand, Baltimore
Kramer, Bernard, Baltimore
Krieger, Edgar, Baltimore
Levin, Benjamin Samuel, Baltimore
Levin, Jacob Benny, Baltimore
Levin, Norman Jack, Baltimore
Levy, Bernard, Baltimore
Loftus, Howard Edmond, Dundalk
Matelis, Olga Anna Pauline, Baltimore
Mazer, Robert, Baltimore
Mendelsohn, Daniel, Baltimore
Morgenstern, William August, Jr., Woodlawn
Muehlhause, Ruth Virginia, Baltimore
Oleszczuk, Melvin Joseph, Baltimore
Pearlman, Albert, Baltimore
Pressman, Isadore, Baltimore
Pucklis, Frank Stanley, Baltimore
Rasinsky, Milton, Baltimore
Rhode, John George, Baltimore
Richman, Jacob Louis, Baltimore
Rochlin, Martin, Baltimore
Rosenberg, Morris, Baltimore
Schade, Joseph Hollis, Westernport
Schneyer, Herbert David, Philadelphia, Pa.
Schwartz, Harry, Baltimore
Shuman, Louis Harry, Scotland
Siff, Jeannette Mildred, Baltimore
Silverstein, Bernard, Ferndale

Stang, Marvin, Brooklyn Heights
Stoler, Myer, Baltimore
Sussman, Bernard, Baltimore
Swearer, Conrad, Larchmont
Thaler, Albert Conrad, Baltimore
Thompson, Charles Pannett, Jr., Baltimore
Thompson, Robert Edward, Waubay, S. Dak.
Vadala, Clarence Eugene, Baltimore
Wachsman, Irvin Louis, Baltimore
Webb, Eilene Cecelia, Fort Howard
Webster, Thomas Clyde, Baltimore
Wich, Joseph Carlton, Baltimore
Wilson, George Kerr, Jr., Baltimore
Wajtczuk, John Albert, Baltimore
Woody, Earl Leslie, Halethorpe
Zerofsky, Harold, Baltimore
Zetlin, Henry Paul, Baltimore

### SPECIAL STUDENTS

Bernstein, Leonard Samuel, Baltimore
Brauer, M. Harry, Baltimore
Dobbs, Edward Clarence, Baltimore
Hamilton, Dorothea Kathleen, Baltimore
Miller, Milton, Baltimore
Thompson, Norman Benjamin, Baltimore

## THE SUMMER SCHOOL—1934

*Aist, Dudley C., Brandywine
Albrittain, M. Louise, La Plata
*Alderton, Harold L., College Park
Alderton, Loretta R., College Park
Algire, Kent D., Silver Spring
Allison, Herbert M., Washington, D. C.
Ambrose, Herbert D., Baltimore
*Anderson, Catherine, Washington, D. C.
Anderson, Richard P., Mt. Ranier
Andres, Helen G., Baltimore
Arnold, Hubert K., Washington, D. C.
Arnold, Julia C., Brentwood
*Ayres, Thomas B., Rock Hall
Baden, Clara G., Brandywine
Bailey, Catherine V., Princess Anne
*Bailey, Wallace K., Woodleaf, N. C.
Bair, Dorothy M., Woodsboro
*Baker, Harry, Jr., Washington, D. C.
Baker, Urla G., Williamsport
*Baker, Virginia, Mt. Rainer
Banks, Elizabeth B., Rockville
Barber, Tena B., Vale Summit
Barnard, Mary, Cumberland
*Barnes, Edwin H., North East
*Barnes, Grace, Lafayette, Ind.
Baron, Herman L., Baltimore
*Bartlett, John B., Baltimore
Barton, Rose, Brunswick
*Beall, Beulah M., Upper Marlboro
Beard, Margaret B., Thurmont
Beata, Sister M., Washington, D. C.
Beatty, James C., Washington, D. C.
Beatty, Josephine A., Barclay
Beauchamp, Franklin W., Snow Hill
Beauchamp, Mildred E., Westover
Becraft, Mabel V., Washington Grove
Belfield, Mattie B., Washington, D. C.
Bell, Mary V., Tuscarora
Bellman, Helen M., College Park
Benedict, Frances, Silver Spring
*Bennett, Elizabeth L., Frostburg
*Bennett, George L., Cumberland
Bennett, James R., Rhodesdale
Bentz, Sylvia G., York, Pa.
Berger, Lola W., Mechanicsville
*Bertschy, Harry A., Gaithersburg
Bickmore, Helen D., Washington, D. C.
Biggs, Shirley M., Westernport
*Bigwood, James F., Indian Head
Birch, Suzanne R., St. Inegoes
Bishop, John C., Queenstown
Blackman, Raymond S., Vienna, Va.
Blake, Margaret D., Baltimore
Blake, Thelma E., East New Market
Blentlinger, Charles L., Frederick
Blentlinger, Nellie E., Frederick
*Bliss, Katharine, Takoma Park
Bloom, Morris, Baltimore
Boarman, William F., Hyattsville
*Bolin, Adoniram J., Milton, Del.
Boote, Howard S., Baltimore
Booth, Emma L., Brunswick
Booth, Robert S., Jr., Washington, D. C.
Bosley, Iris M., Washington, D. C.
*Boston, W. T., Cambridge
Bourke, John J., Washington, D. C.
Bowen, Gertrude E., Benning, D. C.
*Bowers, Arthur D., Hagerstown
Bowers, Paul S., Hagerstown
Bowie, B. Lucile, La Plata
Bowman, Urban N., Landover
Boyd, Sara M., Mt. Ranier
Boylan, Mary N., Washington, D. C.
Boyle, W. Carolyn, Sumter, S. C.
Bradley, W. Brooks, Baltimore
Brady, William H., Aquasco
Bray, Nona D., Hyattsville
Breakall, Mary E., Hancock
Brechbill, Edith L., College Park
Brewer, Mary M., Rockville
Brian, Walter P., Ellicott City
*Bright, Josephine, Baltimore

Brightwell, Ralph E., Lisbon
Brill, John H., Baltimore
Brink, Nancy E., Towson
Brocato, Rosina, Cambridge
Brohawn, Gladys V., Vienna
Brooks, Anna E., Cockeysville
Brooks, James G., Washington, D. C.
Brousseau, Lillian G., Washington D. C.
Brown, Kathrine, Centreville
*Brown, Marshall G., Oakland
Brown, Stanley D., Kensington
*Bruening, Charles F., Baltimore
Brundage, Harriet H., Washington, D. C.
Brusowankin, Bessie, Baltimore
Bryan, Harry V., Washington, D. C.
Buchanan, Margaret B., Beltsville
Buckler, Dorothy E., Prince Frederick
Burdette, Eunice E., Bowie
Burgess, Lionell, Ellicott City
Burslem, Ruth E., Hyattsville
*Burslem, William A., Hyattsville
Burtner, Rosemary J., Boonsboro
Bush, Inez M., Bloomington
*Busick, James G., Cambridge
Butler, Elizabeth, Church Hill
Byers, Josephine R., Hagerstown
Byrd, Nettie G., Baltimore
Byrne, Mary A., Midland
Callahan, Charles L., Baltimore
Callis, Hannah L., Accident
Callis, Mason W., Accident
Calloway, Sadie G., Seaford, Del
*Caltrider, Samuel P., Laurel
Cam, Elinor W., Bethesda
*Campbell, William P., Hagerstown
*Caple, George H., Jr., Westminster
Carlson, C. Allen, Crisfield
*Carr, C. Jelleff, Baltimore
*Carrington, George F., Crisfield
Carroll, Raymond E., Warren, Pa.
Carton, Charna G., Baltimore
Caspari, Fred W., Riva
Castle, Noel O., Brookmont
Chapman, Katheryn D., Washington, D. C.
Chapman, Marion L., Washington, D. C.
Chapman, Mary J., Cumberland
*Chalton, Marion J., Williamsport
Chatham, Elizabeth E., Salisbury
Chesser, Violet, Pocomoke City
Cheyney, Elizabeth B., Ballston, Va.
Childs, Minnie, Annapolis
Christhilf, Francis D., Jr., Baltimore
Christhilf, John F., Baltimore
Claflin, Alison R., Chevy Chase
Clark, Mary, Hancock
Cogswell, Charles L., Washington, D. C.
Cohen, Sidney, Baltimore
*Colburn, Arthur L., Reisterstown
Colip, Louise R., Washington, D. C.
Collins, Esther D., Princess Anne
Collins, Fred vonV., Washington, D. C.
Collins, Gertrude R. V., Cumberland
Collins, Susie E., Hurlock
Conklin, Ada L., Hyattsville
Conrad, Maude, Williamsport
Conroy, Ellen C., Barton
Conroy, Mary A., Barton
Conroy, Timothy E., Barton
*Cooke, Virginia, Washington, D. C.
Cookerly, Minnie E., Middletown
*Cooling, Gilbert C., Barton
*Cooper, William, Lonaconing
Copes, Bessie E., Silver Spring
Corbin, Vera L., Tonkawa, Oklahoma
*Corkran, Philip, Rhodesdale
*Cornell, Florence N., Chevy Chase
Cosgrove, Bernadette, Lonaconing
Cosgrove, Katherine, Lonaconing
Costinett, John H., Hyattsville
Couchman, Carson S., Hagerstown
Coulbourn, Alice M., Crisfield
Coulson, Rhoda M., Washington, D. C.
Covington, Julia W., Princess Anne
Cowie, Jean A., Perry Point
Cox, Catherine L., Hagerstown
Craig, Madie E., Brentwood
Crampton, William G., Washington, D. C.
*Crankshaw, Harold G., Washington, D. C.
Cressman, Kathryn, Boonsboro
Crocker, Beatrice W., Silver Spring
Crook, Ryda V., Sykesville
Crosby, Muriel E., Washington, D. C.
Crotty, James F., Towson
Crouse, Esther L., Uniontown
Crowder, Adelaide M., Washington D. C.
Cullen, M. Elizabeth, Marion Station
Culler, Edna C., Walkersville
Culler, W. Walter, Jr., Walkersville
Cummings, Bernard J., Chevy Chase
Cunningham, Charles H., Deale
Cunningham, Ethel J., Frostburg
*Custis, Edward, Louisville, Ky.
Cutler, Dorothy M., Silver Spring
Daffin, Virginia, Easton
Dahlgren, Ruby A., Friendsville
Daniel, Leviah W., Frostburg
Dashiell, Mildred, Taylor's Island
Davis, Edward F., Cherrydale, Va.
Davis, John H., Hyattsville
Davis, Leon B., Chevy Chase
Davis, Margaret E., Frostburg
Davis, Nellie M., Lonaconing
Dawson, Roy C., Washington, D. C.
*Day, James N., Streett
Dayton, B. James, Bivalve
DeLashmutt, Mildred L., Frederick
DeLawter, Margaret M., Highfield
DeMarco, Carmel, Washington, D. C.

DeMarco, Mary A., Washington, D. C.
Denaburg, Jerome, Baltimore
*Dennis, Helen, Salisbury
Dent, Ida L., Oakley
Deppish, John R., Aberdeen Proving Grounds
*Derr, Melvin H., Thurmont
*Derr, Mrs. Melvin H. Thurmont
Derr, Naomi, Hampstead
DeVilbiss, Preston S., III, Walkersville
*Devilbiss, Wilbur, Brunswick
*Dick, Arthur A., Barton
Diehl, Edna L., Baltimore
Diggs, Everett S., Baltimore
Diggs, Ruth E., Catonsville
Dilley, Edith M., Frostburg
Dillon, Martha, Frostburg
*Dixon, Clara M., Olivet
*Donoho, Dorsey, Marion
*Doordan, Martin L., Bridgeville, Del.
Dorsey, Agatha V., Midland
*Dorsey, Arthur V., Hagerstown
Dorsey, E. Elizabeth, Woodbine
*Doub, Charles A., Williamsport
Doub, Ida L., Williamsport
*Douglass, Edgar M., Washington, D. C.
Downs, Edna K., Williamsport
Downs, Glendora M., Williamsport
Downton, Lydia, Cumberland
*Dozois, Kenneth P., Baltimore
Drake, Lillian, Washington, D. C.
*Drisko, Marian, Hartford, Conn.
Dronenburg, Margaret E., Ijamsville
*DuBose, Clyde H., Pocomoke City
*Duley, Thomas C., Croome
Dulin, Wilbur R., West Annapolis
Dunn, May A., Hyattsville
*Dunnigan, Arthur P., Pylesville
DuPre, Zaidee, Chevy Chase
Dutrow, Ruth H., Boonsboro
Dye, John C., Washington, D. C.
Dyott, Hazel S., Easton
*Earhart, Lyman D., Westminster
*Easter, A. Elizabeth, Baltimore
Ebersole, Pauline R., Williamsport
Eckard, Helen F., Westminster
Eckhart, Edith V., Frostburg
Edgerton, Catherine G., Washington, D. C.
*Edgeworth, Clyde B., Towson
Edmonds, Ralph M., College Park
Edmonston, J. Harvey, Washington, D. C.
*Edwards, D. Robert, Collegedale, Tenn.
Edwards, Earl L., Washington, D. C.
Edwards, John B., Hyattsville
Ellegood, Georgia G., Delmar, Del.
Elliott, E. V., Baltimore
Ellis, Bernice A., Washington, D. C.
Ellis, Wayne P., Jr., Washington, D. C.

Elvove, Joseph T., Washington, D. C.
Emerson, Lelia A., Williamsport
*Endslow, Joseph S., Street
Engel, Lea K., Washington, D. C.
Ensor, Ellen F., Sparks
*Erdman, Ruth, Burkittsville
Evans, Nannie B., Bel Air
Evans, Thomas H., Cambridge
Everline, Athalia, Frostburg
Ewing, J. Paul, National
*Fadely, Sidney H., Racine, Ohio
Farmer, Paul O., Washington Grove
Farrell, Mary F., Cumberland
Farson, Beulah H., Showell
Fatkin, Kathryn M., Luke
Felton, Charles W., Washington, D. C.
Fenby, Catherine H., Rockville
Fenton, Louise E., Washington, D. C.
Filer, Grace E., Frostburg
Finzel, Ruth M., Mt. Savage
Fischer, Isadore, Washington, D. C.
Fisher, Joseph R., Baltimore
Fisher, Marabel, Lonaconing
Fisher, Martha R., Washington, D. C.
Fisher, Mary C., Rockville
Fishkin, Samuel W., Washington, D. C.
Fitzgerald, Mary D., Princess Anne
Fleek, Elsie M., Camp Springs
Fletcher, Mildred J., Takoma Park, D. C.
Flowers, Richard H., Baltimore
Fochtman, Nora M., Cumberland
Foley, Katherine R., Oakland
Forshee, Edith D., Washington, D. C.
Forsyth, Augusta M., Silver Spring
Fosbroke, Gerald E., Elkridge
Foster, Charles F., Washington, D. C.
Foster, Clara B., Cumberland
Fouts, N. Rebekah, Washington, D. C.
Fowler, Virginia J., Bowie
Foxwell, Gertrude E., Leonardtown
Frantz, Merle D., Friendsville
Freeman, Clarke N., Gaithersburg
Freeman, L. Louise, Boonsboro
Freeman, Willye B., Washington, D. C.
Freeny, Lelah H., Delmar
Friend, Amie, Friendsville
Fries, Thelma B., Overlea
Fulgham, Evel W., Washington, D. C.
Fulgham, Mary H., Washington, D. C.
Fuller, Frank, Catonsville
*Funk, Merle R., Boonsboro
Gaczynski, Eugenia T., Jersey City, N. J.
Gaddis, Mary T., Brown
Gaither, Margaret, Bethesda
Gall, Ralph G., Thurmont
Gammon, Nathan, Jr., Washington, D. C.
Gardiner, Genevieve M., Indian Head
Gardner, Emma A., Washington, D. C.
Gardner, Ernestine E., Preston

Garner, Leonore M., Spring Hill
*Garreth, Ralph, Philadelphia, Pa.
Garter, Solomon H., Brooklyn, N. Y.
Gauss, Lenna O., Washington, D. C.
Gaver, Leona M., Mt. Airy
Gaver, Rachel E., Mt. Airy
Geib, Kathryn M., Cordova
George, Claire C., Washington, D. C.
Gerstin, Cynthia, Washington, D. C.
Geyer, A. John, Jr., Baltimore
Gibbs, Edward H. D., Hyattsville
Gibson, Ethel B., Tilghman
Gibson, H. Madeline, Glen Burnie
Gibson, Margaret H., Washington, D. C.
Gibson, Rachel F., Glen Burnie
Gienger, Guy W., Hancock
Gilbert, George E., College Park
Gillespie, Fannie R., Pocomoke
Gilliss, Mary A. F., St. Martins
Gittings, Marion V., Rohrersville
*Given, Maurice X., Salem, Va.
Glime, Gilbert E., Frostburg
Golden, Lex B., Washington, D. C.
Goldman, Luther C., Washington, D, C.
Goldsmith, Samuel, Baltimore
Goldstein, Edward H., Baltimore
*Goldstein, Samuel W., Baltimore
Gorsuch, Jeannette R., New Windsor
Gossard, M. Katherine, Williamsport
Graham, James G., Washington, D. C.
*Graham, Julian R., Barclay
*Graham, Marian N., Marion Station
Grahame, Margaret C., Mt. Savage
Granbery, Helen L., Washington, D. C.
Grand, Joseph A., Washington, D. C.
*Grau, Fred V., Bennington, Neb.
Gray, Dorothy J., Ocean City
*Gray, Ellen H., Reisterstown
Green, Catherine R., College Park
Green, Janice H., Damascus
*Greve, Elmer W., Baltimore
Griffin, Wilsie F., Salisbury
Griffith, Paul S., Frostburg
Gross, Charles R., Stemmers Run
Gross, Lenna L., Towson
*Grove, Donald C., Baltimore
Grumbine, Clara K., Westminster
Gunby, Caroline L., Marion Station
Gurney, Harry E., Washington, D. C.
*Hack, Alfred C., Baltimore
*Hagel, Frank F., Brunswick
Haggett, Eleanor B., Cambridge
Haines, Clayton, Brunswick
Haines, Helena J., Hyattsville
Hala, Mary F., Long Island City, N. Y.
Hale, Helen E., Towson
Hall, Eleanor, Fairmont, W. Va.
Hall, Ruth B., College Heights
Hamma, Maynard F., Washington, D. C.

*Hammack, Russell C., Emmerton, Va.
Hankins, Margaret, Princess Anne
*Hanna, Mary G., Westernport
*Hardell, Elmer P., Washington, D. C.
Hardell, Nellie G., Washington, D. C.
Hardesty, A. Maude, Centreville
Hardesty, Reuben B., Willows
*Hardiman, Sannye E., Baltimore
Hargy, Francis R., College Park
Harman, Frances L., College Park
Harman, Jessie M., College Park
Harrison, Kathryn A., Sherwood
Harvey, Carolyn H., Olney
Harvey, Phyllis E., Deer Park
Haskin, Frederic J., Chevy Chase
Haspert, M. J., Chester
*Hatfield, M. R., Washington, D. C.
*Hauver, Edgar R., Street
*Hawkshaw, Emily T., College Park
Hay Donald A., Washington, D. C.
Hayden, Agnes, Pope's Creek
Hayden, Albert H., Hyattsville
Haydon, Robert L., Jr., Hyattsville
Haynes, Rachel E., Mt. Airy, N. C.
Hearne, M. Elizabeth, Pittsville
Heiss, John W., Washington, D. C.
Helfgott, Jack L., Mitchelville
Henderson Eleanor B., Cumberland
Henley, Robert C., Washington, D. C.
*Hersberger, Arthur B., Barnesville
Hess, Palmer F., Hancock
*Hesse, Claron O., San Gabriel, Calif.
Heylmun, Stanley L., Baltimore
Hickman, Mildred M., Crisfield
Hicks, Ara L., Dickerson
Higgins, Mabel L., Vale Summit
Hightman, Elinor, Burkittsville
*Hiller, Clara G., Washington Grove
*Hitchcock, George R. N., Westminster
Hobbs, Lewis F., Silver Spring
Hoenes, Sophia W., Woodlawn
Hoffhine, Bertha F., Hagerstown
*Hoglund, Margaret E., Takoma Park
Hoglund, Marion C., Takoma Park
Hohing, Margaret M., Lonaconing
Holloran, Margaret A., Washington, D. C.
Hopkins, Amy L., Gambrills
Hopkins, Anne C., Cordova
Hopkins, Grace R., Cordova
Horner, William, Monie
Horsey, Mary V., Crisfield
Horsey, Maude B., Mardela Springs
*Hoshall, Edward M., Baltimore
*House, James H., Flintstone
Howard, Addie J., Hyattsville
Howard, Adrienne R., College Park
*Howard, M. Louise, Dayton
Howeth, Alice E., Reids Grove
Hubbert, Tilghman S., Cambridge

Hudgins, Houlder, Washington, D. C.
*Hudson, T. Giles, Alberta, Va.
*Hudson, Yola V., Cumberland
Hueper, Edith J., Berwyn.
Hume, Charlotte M., Adamstown
Hutchins, Thomas M., Bowens
Hutchison, Stella B., Cordova
*Hutt, Mildred A., Baltimore
Hutton, Joel W., College Park
Hyatt, Herbert S., Damascus
Hyde, Jennie M., Barton
Iden, Josie M., Kitzmiller
Ijams, Elizabeth V., Baltimore
Ingles, Margaret S., Cumberland
Ingrick, Helen S., Washington, D. C.
Inskeep, Lillie M., Barton
Insley, Mildred E., Cambridge
Ivins, May E., Baltimore
Jackson, Mary E., Hutton
Jarboe, Maude M., Mechanicsville
Jarrell, Mrs. T. D., Hyattsville
Jarrell, Temple R., Hyattsville
Jarvis, Doris E., Bladensburg
Jeffers, Walter F., Berwyn
*Jenkins, Blanche L., Frostburg
*Jenkins, Harry, Appalachia, Va.
Jenkins, Pauline H., Tilghman
*Jenkins, Stanleigh E., Hyattsville
Jensen, Lorida J., Washington, D. C.
*Jewell, Edgar G., Damascus
Jocelyn, Hazel B., Princess Anne
Johnson, Evelyn I., Westernport
Johnson, Willye G., Salisbury
Jolly, William H., Baltimore
Jones, Margaret C., Frostburg
Jones, Margaret E., Baltimore
Jones, Marguerite E., Owings Mills
Jones, Mary E., Brodnax, Va.
Jones, Robert W., Frostburg
Jones, Thomas W., Jr., Ridgely
*Jones, Wilbur A., Pittsville
Jones William P., Wingate
Kahn, Arthur E., Jersey City, N. J.
Kaylor, Jeannette, Hagerstown
Keating, Edith L., Centreville
Keller, Minnie S., Buckeystown
Kelley, Mary M., Millsboro, Del.
*Kelley, Michael J., Washington, D. C.
Kelly, Harold L., Jr., Forest Glen
Kemp, Mary, College Park
Kemp, Sarah D., Trappe
Kendle, Missouri, Williamsport
Kennedy, John E., Philadelphia, Pa.
Kennedy, Virginia D., Bel Alton
Kennedy, Harold B., Nanticoke
Keppler, Mabel W., Washington, D. C.
Kerr, Roy H., Hyattsville
Kesner, Melvin, Friendsville

Kiernan-Vasa, Helen C., Washington, D. C.
*King, Frances L., Frederick
*King, John R., Bloomington, Ind.
King, M. Frances, Huntingtown
King, Olive E., Clinton
King, Ora H., Clarksburg
King, Robert M., Cumberland
Kinna, Charles R., Chewsville
Kirby, Davis C., Trappe
Kirby, Marion, Takoma Park
Kirkpatrick, Mary A., Cumberland
*Kitchings, Atley A., Clinton, Miss.
Kitwell, Jeanette B., Washington, D. C.
Kitzmiller, Mary W., Keedysville
Kline, Annabel C., Frederick
Kline, Margaret M., Cumberland
Klompus, Katie, Frostburg
Knoche, Henry G., Baltimore
*Knox, Clarence M., Finksburg
*Kooken, Nellie R., Westernport
Krey, Isabella B., Washington, D. C.
*Kroh, John P., Westminster
Kunes, Nina E., Cumberland
Kyle, Margaret M., Barton
Kyle, Thelma R., Barton
*Lacy, Lois, College Park
Lanham, William B., Jr., College Park
Lankford, Mary L., Elkridge
Lansford, Wilson A., Bethesda
Lasky, Saul R., Baltimore
Laukaitis, Peter E., Waterbury, Conn.
Lauxmann, Elizabeth A., Washington, D. C.
Lawall, Willard M., Washington, D. C.
*Lawler, Sydney T., Faulkner
Laws, Margaret C., Parsonsburg
Lawton, Edwin H., Washington, D. C.
Layman, Mary G., Frostburg
Layman, Zeola P., Frostburg
Laynor, Grace C., Elkridge
Lee, Barbara M., Landover
*Lee, Mary P., Florence, S. C.
Lee, W. Wilson, Washington, D. C.
LeFevre, Claude M., Taneytown
*Lehr, Henry F., Bethesda
*Lenderking, Ruth E., Baltimore
Leonard, Norma L., Trappe
Lewis, Asa, Terra Alta, W. Va.
Lewis, Frank H., Frederick
Lewis, Thomas W., Keedysville
*Liebman, Rebekah, Norfolk, Va.
Lightfoot, Georgiana C., Takoma Park
Lipin, Edward J., Pasadena
Lisann, Tessie S., Washington, D. C.
Litschert, Robert G., Hyattsville
*Littleford, Robert A., Washington, D. C.
Livingstone, Nannie D., Frostburg

*Lohmann, Pauline, Washington, D. C.
Long, Reba P., Crisfield
Lopata, Alexander A., Baltimore
Lord, John W., Denton
Love, Mildred, Lonaconing
Lovell, Jeannette E., Brentwood
Lowery, Norma L., Cumberland
Lowman, Robert P., Covington, Va.
Ludlow, Francis W., Washington, D. C.
Ludwig, Vida S., Hagerstown
*Lumsden, Florence M., Washington, D. C.
Lutz, Richard L., Riverdale
Lyddane, Eugene T., College Park
Lynch, Elizabeth S., Washington, D. C.
Mace, Evelyn S., Cambridge
MacLellan, Annie M., Baltimore
MacLeod, Mary A., Washington, D. C.
Maddox, H. Louise, Hyattsville
*Madigan, George F., Washington, D. C.
Magill, Charles H., Washington, D. C.
Magruder, Mary S., Washington, D. C.
*Manchey, L. Lavan, Baltimore
Mangum, Mary E., Washington, D. C.
Mangum, Susie A., Washington, D. C.
Manley, Agnes L., Midland
Manley, John F., Frostburg
Manley, Margaret R., Midland
Manley, Mary E., Midland
Mann, Carl M., Hagerstown
Mansfield, Richard H., Landover
Marche, Louise C., Hyattsville
Margraff, Irene L., Accident
Marshall, Mrs. Barton H., Hyattsville
Marshall, Gwendolyn A., Princess Anne
Mason, Emily M., Hancock
Masson, Gladys S., Silver Spring
Mathias, Joseph M., Washington, D. C.
Matthaei, Lewis A., Baltimore
*Matthews, Earle D., Homestead, Fla.
Matthews, Elizabeth, Stockton
Matthews, Nannie B., Princess Anne
Maxwell, Mary L., Rising Sun
May, John B., III, Washington, D. C.
McCann, R. Harold, Glen Burnie
McCarthy, Joseph H., Washington, D. C.
*McCauley, Irma, Washington, D. C.
McCormick, Alice A., Barton
*McCreedy, Grace, Tampico, Ill.
McCullough, Raymond O., Friendsville
McCurdy, Philip C., Kensington
McDaniel, Alden W., Chevy Chase
McGann, Theodore, Washington, D. C.
*McGarvey, Margaret D., Washington, D. C.
*McGowan, Bernard T., Midland
*McGowan, George E., Annapolis
McGrady, Stella, Rising Sun
McGrath, Joseph S., Crisfield
McGuigan, Mary J., Halethorpe
McIntwiff, Lillian E., Nottingham, Pa.

McKean, Mildred L., Kitzmiller
McKenna, John M., Baltimore
McLain, Edward J., Washington, D. C.
McLaughlin, Jean S., Hagerstown
McLuckie, Dora M., Barton
McMahan, Catherine E., Cambridge
McMahon, Esther A., Midland
*McMenamin, David C., Chestertown
McMillan, Frances L., Chevy Chase
*McMinimy, Mary W., Washington, D. C.
*McMurtrey, Rosalie, Pendleton, S. C.
McNamara, Mary A., Eden
McNary, Katherine R., Takoma Park
*McPhatter, Delray B., Berwyn
*Medlock, Lawrence C., Honea Path, S. C.
Meese, Louise, Barton
Meese, Mae, Barton
Meiser, Woodrow W., Baltimore
Melchionna, Olin R., Rochelle Park, N. J.
Menke, Marie P., Deer Park
*Meredith, Francis E., Federalsburg
Merendino, Albert B., Baltimore
Merrick, James B., Crumpton
Merrill, William E., Pocomoke City
Merriman, Gladys H., Barton
Merritt, Virginia H., Dundalk
Messner, Jack, Washington, D. C.
Meyers, Marie R., Midland
Middleton, Elizabeth H., Washington, D. C.
*Middleton, Frederic A., Washington, D. C.
Milans, Everett D., Washington Grove
Miller, Dorothy A., Hyattsville
Miller, Jean, Beltsville
Miller, Leona C., Washington, D. C.
Miller, Verna, Lonaconing
Milliken, Julia W., Silver Spring
Mims, James R., Jr., Luray, Va.
Mitchell, Lucile, Oakland
Mitchell, Mary, Ellicott City
Mitchell, Virginia V., Mechanicsville
Mitchell, William A., Baltimore
Mobus, Paul F., Ellerslie
Molster, Elizabeth F., Washington, D. C.
Monk, John E., Washington, D. C.
Moody, Louis H., Jr., Washington, D. C.
Moore, Frances A., Brunswick
Moore, Grace E., Whitehall
Moore, Hilda J., Frostburg
Moore, Marion S., Fruitland
*Moore, Myrtle E., Washington, D. C.
*Morgan, Claudine M., Lonaconing
*Morgan, Esthelene W., Chevy Chase
Morgan, Lee, Washington, D. C.
Morgan, Mary, Frostburg
Morris, Hilma M., Washington, D. C.
Morrison, M. Evelyn, Benning, D. C.
Morse, Harry, Washington, D. C.
Moser, Marion O., Frederick
Mudd, H. Virginia, Pomfret

Mueller, Eugene F., Washington, D. C.
Muller, Howard C., Baltimore
Mulligan, Betty, Berwyn
Mullinix, Walter C., Woodbine
Mumma, Bertha A., Sharpsburg
Muncaster, Emma W., Derwood
Munroe, E. Louise, Silver Spring
Murray, Elizabeth M., Washington, D. C.
*Murray, Ola H., Hughesville
*Musselman, John W., Baltimore
Myers, M. Evelyn, Riverdale
Myers, Wilma C., Riverdale
*Nathanson, Albert E., Washington, D. C.
Naylor, Catherine L., Camp Springs
Neal, Evelyn L., Hurlock
Needham, William C. H., Washington, D. C.
Needy, Dorothy V., Hagerstown
Nelson, Beatrice, Crisfield
*Nelson, Thorman A., Washington, D. C.
Nethken, Warder R., Baltimore
*Newcomer, Joe C., Brunswick
Nichols, Anna, Brunswick
Nichols, Mary E., Brunswick
*Nichols, Wilbur C., Hyattsville
*Nicht, Theresa B., Frostburg
Nides, Nicholas G., Centreville
*Nihiser, Edwin E., Hagerstown
Norfolk, Marguerete, Linthicum Heights
Niland, Kathryne Y., Cumberland
*Nordby, Aagot F., Washington, D. C.
Norris, Joseph V., Baltimore
Nutter, Eva P., Rising Sun
*Oberlin, Gladys M., Silver Spring
O'Berry, William S., Solomons Island
O'Donnell, Mary W., Mt. Lake Park
Oliver, Elmer R., Washington, D. C.
Orem, Nicholas, Jr., Hyattsville
*Outten, Lora M., Pocomoke City
Owens, James L., Federalsburg
Owens, Mary, Fitzgerald, Ga.
Pagan, Katharine, Washington, D. C.
Pahlman, Margaret B., Easton
Pannone, Armand M., Cumberland
Panoff, Mortimer, Brooklyn, N. Y.
Pariseau, Roger G., Bethesda
Parker, Edith R., Washington, D. C.
Parker, Elizabeth B., Berlin
Parker, Marion E., Washington, D. C.
Pates, William A., Catonsville
*Payne, Stella E., Hyattsville
Pearson, Craven P., Jr., Elkridge
Petitt, E. Ethelyn, Snow Hill
Phillips, Gladys E., Cambridge
*Phillips, Watson D., Cambridge
*Phipps, William R., Easton
Pinto, Bessie Y., Princess Anne
Piozet, Nina C., Hyattsville
Pistel, Lester L., Hyattsville

Pitts, Robert R., Brandywine
Plager, M. Lillian, Washington, D. C.
Platt, Doran S., Jr., Washington, D. C.
Plummer, Iva M., Chaney
Poland, Hazel, Westernport
Posey, Katherine E., La Plata
Powell, Alice L., Beltsville
Powell, Frances K., Brookeville
Powell, Margaret E., Princess Anne
Powell, Sadie, Pocomoke
Prettyman, Charles W., Rockville
Pumphrey, A. Joseph, Baltimore
Quigley, Edward J., Colmar Manor
Rafferty, Veronica M., Nikep
Ragains, Nannie E., Salisbury
Rainwater, Pauline, Wadesboro, N. C.
Ramsburg, Helen B., Beltsville
Ramsburg, Herman F., Frederick
*Rash, Harold H., Miami, Fla.
Rawlings, Fred B., Washington, D. C.
*Reber, Harold Z., Shippensburg, Pa.
Reed, Catherine T., Riverdale
*Reed, Viva M., Westminster
Reeder, Harriet, Morganza
Reese, Myrtle R., Oakland
Reich, Elinor G. J., La Plata
Reidy, Kathryn L., Chevy Chase
Remington, Jesse A., Laurel
Reuling, Louis E., Baltimore
Reynolds, Brooks E., Georgetown, Del.
Rice, Elberta T., Rockville
Rice, Helen, Jefferson
*Rice, Russell B., Frostburg
Rice, Ruth B., Cumberland
Rich, Arthur J., Brooklyn, N. Y.
Richey, Frances, Chevy Chase
Richter, Christian F., Jr., Overlea
Riddlesberger, May A., Waynesboro, Pa.
Ridenour, Anna M., Smithsburg
*Riedel, Erna M., Gambrills
Riehl, Louis M., Lansdowne
Rigler, Hazel V., Mount Airy
Rintoul, James L., Jr., Baltimore
Rittenhouse, Ruth O., Centreville
Roberts, Dorothy C., Baltimore
Roberts, Fannie E., Washington, D. C.
*Roberts, J. Harvey, Baton Rouge, La.
Robertson, Elizabeth K., Rockville
Robertson, James C., Jr., Baltimore
*Robertson, Roy L., Elkton
Robertson, Thomas E., Washington, D. C.
Robey, Kate W., Beltsville
Robinson, Arthur E., Bladensburg
Robinson, Charles H., Cardiff
Robinson, Sara A., Cambridge
Roby, Dorothy V., Riverdale
Rodbord, Joseph H., Washington, D. C.
Rosenfield, Marjorie D., Mt. Ranier
Ross, Violet, Glen Burnie

*Roth, Alfred C., Ridgely
Rothschild, Carl, Chefoo, China
Roudabush, Virginia, Luray, Va.
Roylance, Merriwether L., Hyattsville
Ruben, Mortimer, Brooklyn, N. Y.
*Rutledge, Alma W., Baltimore
Ryan, Anna, Bishopville
Sachs, George H., Washington, D. C.
Sanford, Joseph N., Washington, D. C.
Sarco, Michael J., Williamsport
Sasscer, Cora D., Annapolis
Savage, Verna B., Friendsville
Scarborough, Harold B., Berlin
Scates, Irene A., Gaithersburg
Schaller, Caroline, Washington, D. C.
Schamel, Carmen, Hagerstown
*Schmalzer, Dorothy E., Baltimore
Schneider, John E., Washington, D. C.
Schone, Anna M., Baltimore
*Schollenberger, George S., Laurel, Del.
*Schopmeyer, Clifford S., College Park
Schramm, Ina F., Barton
Schreiber, Irvin R., Washington, D. C.
Scott, Dolores, Frostburg
Sebold, Edward W., Mt. Lake Park
*Secrist, Ford I., Easton
Seidenberg, Elijah M., Washington, D. C.
*Semler, Harry E., Hagerstown
Sensenbaugh, Glenn H., Smithsburg
Sergent, Edith M., Fairmont, W. Va.
Sessions, Ruth W., Washington, D. C.
*Severance, Katheryne, Gaithersburg
*Sewell, Dora E., Queen Anne
Shafferman, Frances E., Cumberland
Shaver, Margaret C., Silver Spring
Shaw, Ann B., College Park
Shaw, Haylett B., Chevy Chase
Sherill, Aileen M., Indian Head
Shiley, Ethel M., Annapolis
Shinn, John S., Washington, D. C.
Shipley, Emma E., Woodbine
Shipley, Mary L., Glen Burnie
Short, Marguerite N., Hurlock
Short, Sarah L., Baltimore
Shugars, Helen C., Hancock
Shulenberger, Lillian, Gulfport, Miss.
*Shulman, Emanuel V., Baltimore
*Shumaker, Warren E., Cumberland
Sibley, Flora E., Gaithersburg
Siegel, Esther F., Baltimore
Sieling, Frederick W., Annapolis Junction
Silkman, John A., Baltimore
Simpkins, Audrey B., Princess Anne
Sinclair, Lula M., Tilghman
Skirven, Emilie N., Chestertown
Slade, Margaret E., Baltimore
*Slama, Frank J., Baltimore
Sledd, Gladys H., Wake Forest, N. C.

Sleeman, Ursula C., Frostburg
Sleeman, Veronica, Frostburg
Sloan, Margaret H., Lonaconing
Small, John R., Washington, D. C.
Smith, Arthur F., Lonaconing
Smith, Francis D., Vale Summit
*Smith, Helen, Takoma Park
Smith, Katharine, Hagerstown
Smith, Mary E. M., Frederick
*Smith, Mary E., Lonaconing
*Smith, Max A., Clarksville
Smith, Miriam O., Bethesda
Smith, Ruth E., Frederick
Smyrnas, Peter, Washington, D. C.
Snyder, Ruth I., College Park
Snyder, Vara D., Washington, D. C.
Sockrider, Elsie M., Washington, D. C.
Sollars, Mabel P., Oakland
Solt, James E., Frostburg
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Sothoron, Julia H., Charlotte Hall
Souder, Dorothy L., Damascus
Souder, Letty, Gaithersburg
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*Speicher, Foster O., Friendsville
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Speicher, Ruth M., Accident
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Steen, Howard M., Washington, D. C.
Stephen, Hazel E., Hyattsville
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Stetson, Margaret B., Washington, D. C.
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*Stirton, Alexander J., Washington, D. C.
Stone, Betty L., Port Tobacco
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Struckman, Hannah M., Cumberland
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Stull, Charles C. T., Frederick
Sudler, Sara K., Sudlersville
Sudler, Olive W., Baltimore
*Summers, Charles A., Boonsboro
Sutton, Marion P., Kennedyville
Sweeney, Thomas R., Washington, D. C.
Swigert, Wesley J., Baltimore
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Talbott, Elsie L., Brunswick
*Tarbell, W. E., Millersville
Tarbutton, Ethel, Easton
Tartikoff, George, Brooklyn, N. Y.
Tatman, Helen M., Church Hill
Taylor, Dorothy M., Salisbury

*Teitelbaum, Harry A., Baltimore
Teter, Naomi R., Cumberland
*Thom, Myrtle A., Washington, D. C.
Thomas, Alice E., Federalsburg
Thomas, Catherine E., Frostburg
Thomas, Genevieve E., Washington, D. C.
Thomas, Marcelle, Cambridge
Thomas, Margaret, Hyattsville
Thomas, Robert W., Washington, D. C.
Thomas, Sara, Hyattsville
Thompson, E. Wells, Washington, D. C.
Thompson, Mary C., La Plata
Thompson, Olivia, Hurlock
*Thompson, Sara J., Millinocket, Me.
Thrasher, Frances L., Deer Park
Tibbs, Mattie M., Aberdeen
Tignor, Lizzie B., Spencerville
Tilton, Mary A., Washington, D. C.
Todd, Bradye R., Wingate
*Todd, Wilton R., Wingate
Tolker, Ethel B., Silver Spring
Tompkins, Margaret H., Rockville
*Toulson, Sarah I., Salisbury
Towner, Ethel L., Washington, D. C.
Trott, Gertrude V., Bowie
Truitt, Bertha E., Sudlersville
Truscott, Grace M., Washington, D. C.
Turner, Margaret A., Washington, D. C.
Tyler, Mary A., Crisfield
Unger, Arley R., Hancock
*Van Metre, Albert R., Pasadena
Van Pelt, Pauline C., Brunswick
*Varela, Agatha M., Washington, D. C.
Venables, Robert R., Washington, D. C.
Venemann, Chester R., Riverdale
Vickers, Osbon T., Laurel
Vignau, John, Washington, D. C.
Vogtman, Harry R., Frostburg
Wachtel, Margaret J., Myersville
*Wade, Margaret E., Port Tobacco
Wainwright, Florence A., Washington, D. C.
Waite, Merton T., Odenton
Walk, Mildred D., Cumberland
Waller, John R., Hebron
Waltemyer, Ruth, York, Pa.
*Waltz, George F., Washington, D. C.
Wanderer, Margaret A., Salem, N. J.
Warner, Clifton W., Lineboro
Warshafsky, Herman, Washington, D. C.
*Waskow, Henry B., Baltimore
Wasserman, Sidney, Baltimore
Watkins, Corrinne B., Mt. Airy
Watkins, Myrtie E., Monrovia
*Watkins, Orville R., Hyattsville
*Watkins, Wilma L., Washington Grove
Weagly, Margaret H., Laurel
*Weagly, Robert H., Laurel
Webb, Albert W., Vienna
Webb, Margaret O., Hyattsville
Weirich, William B., Hyattsville
Welch, Harmon C., Cumberland
Weller, Jeanne, Hagerstown
Wells, Francis P., Washington, D. C.
Welsh, Barnard T., Rockville
*Welsh, Claribel, College Park
*Wentz, Clark H., Manchester
*Wentz, Mildred J., Philadelphia, Pa.
West, Clarence J., Jr., Washington, D. C.
Westerblad, Ruth E., Darlington
Westfall, Margaret R., Bethesda
Wetherell, Josephine R., Washington, D. C.
Wheatley, Molly, Rhodesdale
Whitacre, Esther M., Silver Spring
White, Horace R., Annapolis
*White, Joseph C., Buckhannon, W. Va.
*White Richard O., College Park
White, Virginia L., Washington, D. C.
*Whiteford, Henry S., Baltimore
Whittington, Carrie B., Marion
Whittington, Virginia E., Marion Station
Widmyer, Helen L., Hagerstown
Wildman, Rose K., Washington, D. C.
Wilhide, A. Ruth, Pawnee, Oklahoma
*Wilkinson, Perry O., Salisbury
Williams, Ralph C., Silver Springs
Williford, Mattie M., Apapka, Fla.
Willis, Ryland L., Washington, D. C.
Willis, S. Mabel, Vienna
Wilson, Helen M., Fullerton
Wilson, Mary C., Princess Anne
*Winnemore, Augustine E., Washington, D. C.
Wise, Elizabeth F., Middletown
Wise, Margaret E., Fitzgerald, Ga.
*Wold, Catherine T., Washington, D. C.
*Wolfe, Kathleen E., Frostburg
*Wood, May L., Boyd
Woodell, John H., Seaford, Del.
Wooden, Ernest E., Reisterstown
Wooden, Eugene J., Hyattsville
*Wooters, Laura D., Ridgely
Worgan, Marie H., Lonaconing
Worthington, Elizabeth J., Del Mar, Calif.
Wright, Anita B., Jessup
Wright, Helen, Hagerstown
Wright, Mabel V., Cambridge
*Wright, Nadia V., Chevy Chase
Wroth, Peregrine, III, Hagerstown
Yeager, Sylvia V., York, Pa.
Yohn, Lionel, Westminster
Yonkers, Bernard O., Emmitsburg
Young, Alma, Prince Frederick
Zebelean, John, Catonsville
Zeller, Grace A., Rockville
Zihlman, Frederick A., Washington, D. C.
*Zimmerman, Evelyn, Hopewell, Pa.
Zirckel, John H., Baltimore

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*Graduate students.

## SUMMARY OF STUDENT ENROLLMENT

### AS OF JUNE 1, 1935

RESIDENT COLLEGIATE COURSES—ACADEMIC YEAR.

| | College Park | Baltimore | Total |
|---|---|---|---|
| College of Agriculture | 194 | ........ | 194 |
| College of Arts and Sciences | 865 | ........ | 865 |
| School of Dentistry | ........ | 352 | 352 |
| College of Education | 314 | ........ | 314 |
| College of Engineering | 305 | ........ | 305 |
| Graduate School | 196 | ........ | 196 |
| College of Home Economics | 126 | ........ | 126 |
| School of Law | ........ | 220 | 220 |
| School of Medicine | ........ | 444 | 444 |
| School of Nursing | ........ | 119 | 119 |
| School of Pharmacy | ........ | 285 | 285 |
| Total | 2000 | 1420 | 3420 |
| SUMMER SCHOOL, 1934 | 1016 | ........ | 1016 |
| EXTENSION COURSES: | | | |
| Industrial Education (Collegiate Credit) | 228 | ........ | 228 |
| Art Education (Collegiate Credit) | 22 | ........ | 22 |
| Mining (Sub-Collegiate Credit) | 403 | ........ | 403 |
| Grand Total | 3669 | 1420 | 5089 |
| Less Duplications | 285 | 2 | 332 |
| Net Total | 3384 | 1418 | 4757 |

Enrollment in Short Courses of from two days to six weeks; Rural Women, 677; Boys' and Girls' Club, 329; Volunteer Firemen, 230; Florists, 151; Nurserymen, 50; Garden School, 75; Canner's Conference, 89; Winter School, 21.

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**Any further information desired concerning the University of Maryland will be furnished upon application to**

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